

OROC

Open Registration of Cultivars



International Register of Ornamental Plant Cultivars:

Book VIII: Woody Plants

OROC of www.cultivar.org

Laurence C. Hatch, Chief Registrar and Editor

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Please visit www.cultivar.org for more information on the OROC ("oh-rock") cultivar registration project

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Editor's Note: this is working copy of OROC Book VIII, covering all genera of woody plant cultivar registrations in our system from OROC's inception in 2015 to present. In general, we are accepting cultivars from 2013 onward if they have not been published in a reference manual. This is a review copy for our subscribers and partners. It is not a finished, complete work. It is however a useful interim reference and is intended to assist authors and educators of all types to communicate new cultivar data. We also know that many curators, private collectors, growers, and breeders now use the OROC system to seek out and acquire new germplasm as well as measure the strengths of their own introductions.

OROC has been a wonderful success and worth all the long hours, funds, and early frustrations. More than 58,000 unique visitors from 121 countries have looked at the OROC registers online (Google Play Books and Cultivar.org) and we cannot of course count the number of offline views from downloaded copies. Please get a copy or two and share with your friends, students, coworkers, clients, and anyone else who loves the

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best ornamentals on earth. It is 100% free and designed to be a powerful educational tool in the public and private interest.

The finished Book V in Version 5.2 was completed on May 11, 2017 and considered a stable, finished document suitable for citation as follows:

Hatch, L.C. (General Editor) and M. Summers. 2017. International Register of Ornamental Plant Cultivars: Book V: Woody Plants. Version 5.2. Open Registration Of Cultivars (OROC). Cultivar.org (publisher). Cary, North Carolina.

The current Version 8.1 may be cited as follows:

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Version 5.0 February 2, 2017

Version 5.1 March 13, 2017

Version 5.2 May 11, 2017

Version 8.0 November 11, 2017

Version 8.1 December 30, 2017

Newest cultivars in Book VIII appear for the time being at the front of the book in **rich forest green** for easy location. They will be files in order by genus and OROC Registration Number in the future.

The OROC Declaration and OROC Principles and Remedies used to drive, motivate, and inform the project are found at the end of this document. The recently revised Trademark Policy (Principle 20) is being evaluated worldwide by many parties as a useful document in the handling of complex trademark vs. cultivar situations.

INTRODUCTION: We have endeavored to produce as accurate and useful descriptions as possible based on all available information on these new and often very rare cultivars. This registry is never finished so if you know more (and can document it) please contact us at ornamentals@lycos.com with OROC in your subject line. Where no descriptions are placed please rely on the under URL link to view the originator's or a major vendor's description.

Your data submissions today will make those free books happen. Thank you in advance.

Before I ramble on...OROC is not pronounced like a popular, light weight, hotel lobby vacuum cleaner but as "Oh-rock" something like the snazzy and garish lime green or orange IROC Chevy Camero you or your dad may have had in high school. If you're a Millennial...Google IROC before your phone catches fire. Hope that helps. We hope to rock.

We wish we could delay publication until every last detail of every cultivar was nailed down, vouchered, taxonomically perfect, sealed in plexiglass domes for all time, DNA fingerprinted, placed in foirty-six reference LEED Gold certified Green collections, and otherwise documented to near perfection. But at some point, you just need to release the data to our highly knowledgeable readership and get feedback, moving on to the next register while hoping to improve this one every single day and week. This is preliminary data and that is what people tell us they want. If this book is too "quick and dirty" for you please write the ISHS and ask if their registrars are doing better with these taxa and when to expect a free woody plant registry with more than 0.1% of all new cultivars.

Kudos cubed to both Marks, Janice, Little Lisa, Max K., and Lloyd for helping beyond measure, fixing my mistakes, and being data magnets and skilled writers. More than 100 people sent data and we thank you for helping nurture and foster this passionate, niche community. That sounds horrible. We just...thank you.

When OROC published Book I we received many favorable comments and we are still delighted by a steady flow of Google Play Books and Cultivar.org downloads on a regular basis. It's still 100% free and always will be as long as I have breath. It turns out Book I was a slightly depressing experience for some folks. "I had no idea..." and "I'm so behind...out of touch" was emailed a time or twenty. One experienced guru used the term "shock and awe". The frightful and yet exciting tsunamic volume of cultivar knowledge today is humbling to everyone unless we're individually spending 500 hours a year seeking it out and devouring it in big bites on a daily basis with near religious fervor. We went from sad to glad, dumb to slightly informed, in the space of weeks. OROC is abstracting stuff...1000 hours a year if required.

Some wise collectors, breeders, plant materials experts, students, designers, directors of this or that, consultants, big growers, plant people of all shapes and sizes, curators, taxonomists, gurus, future gurus, and otherwise well connected plant people did not know about a large percentage of the plants we registered. Neither did I. So maybe this remains a good idea.

If this Book makes you or me feel more eager to learn and click, empowered, charged up, ready to dig up more of your lawn for planting beds, crazy and insane to acquire some new cool plants, happy about the general state of gardening universe, loving those devoted plant breeders, bringing your students up to pace, and with a vast new knowledge base, we at OROC have done our job. If we went "above and beyond" and we knocked your socks over to the next county, please write. If we didn't - also please write and tell us how to get better.

Better yet...join us. OROC Certified Cultivar Registers must study, read entire volumes and many articles, and pass a rigorous exam regardless of previous formal education and background.

Tell us what you think because we truly care.

- Larry Hatch
Chief Registrar and General Editor
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New Cultivars from Book VIII: Version 8.0 and 8.1

Registration is pending for all these items and they will be assigned OROC numbers and alphabetized with the existing registrations below from Book V when this process is complete.

Abelia x grandiflora TWIST OF LEMON™ 'Gretol' - web: <http://www.gardendebut.com/plant/Twist-of-Lemon-Abelia>, accessed 12/28/2017

Abelia x grandiflora TWIST OF LIME™ - new trademark name for 'Hopleys'. <http://www.gardendebut.com>

Abelia x grandiflora TWIST OF VANILLA™ 'Wevo1' - <http://www.gardendebut.com>

Abelia x grandiflora FUNSHINE™ 'Minacara1' = 2-3 ft. tall x wide, leaves with "bright marmalade-orange and caramel" all season long, older leaves lime to light green, flower corolla lavender-purple "peppering the branches all summer", fragrant, better habit and dark color than BRONZE ANNIVERSARY "which it now replaces". In: http://springmeadownursery.com/plants_details.php?id=410, accessed 12.27.2017

Abelia PASTEL CHARM® 'Minduo2' - 1.5m tall x wide, flowers appearing light pink, on close inspection light pink with lavender-pink markings at the base of the corolla outside and in the middle of it's lobes inside, new leaf tips reddish. Or: Pepinieres Minier 2014, <https://www.pepinieres-minier.fr/produit/abelia-x-pastel-charm-r-minduo2-cov>, accessed 12.27.2017

Abelia PEACH PERFECTION™ 'SRPabeper' - 2-3 ft. tall x 4 ft. wide, compact. Leaves bright, glossy gold, holding up in sun and heat, new tips bright peach to red shades, fading to a light green, tricolor effect at time. So, in: Star Roses and Plants, online catalog 2018, https://issuu.com/starrosesandplants/docs/2018_catalog, accessed 10.31.2017

Abelia GOLD TOUCH® 'BMRGOLD' - In, web: <http://www.sapho.fr>, accessed 10.31.2017

Abies balsamea 'Bernadine Gold' - <http://www.inspection.gc.ca/english/plaveg/pbrpov/cropreport/firb/app00007363e.shtml>

Abies balsamea 'Canada Creek Ranch' - habit upright to columnar, dense. Needles lighter green. So, in: <http://www.coniferkingdom.com>, accessed 10.31.2017, listed under new plants

Abies balsamea 'Mighty Tightly' - habit slow, very dense, Or: Gary Gee from witches broom. So, in: <http://www.coniferkingdom.com>, accessed 10.31.2017, listed under new plants

Abies concolor 'Hoop-dee-doo' - habit dense, very compact. Needles light blue. Or: Mike and Cheryl Davidson, found as broom at a golf course. So, in: <http://www.coniferkingdom.com>, accessed 10.31.2017, listed under new plants

Acer buergerianum 'Michael Steinhardt' - web: <http://www.mrmapple.com>, accessed 12.29/2017

Acer palmatum 'Blackbeard's Gold' - leaves with bright golden-yellow fall color, reliably so.

Acer palmatum 'Cupid' - 6-8 ft. in 15 years, bark coral-colored, a dwarf sport from a broom, denser, smaller than most coral barks. web: <http://www.mrmapple.com>, accessed 12.29/2017

Acer palmatum 'Gold Digger' - bark, twigs light yellow becoming more orange on tips, leaves peach orange become gold with red to coral margins,

later more green, fall color yellow becoming "bold red". Or, web: <http://www.mrmapple.com>, accessed 12.29/2017, their own introduction

Acer palmatum 'Green Tea' - 10-12 ft. (10 years), new growth red, becoming a green tea sort of color, later peachy-green, maturing to olive green with pink to red tips, fall shades orange to red. Or: Talon Buchholz, chance seedling of 'Amber Ghost'. web: <http://www.mrmapple.com>, accessed 12.29/2017

Acer palmatum (Dissectum Group) 'Liberty Bell' - typical Dissectum habit and left incisions, new leaves orange over chartreuse, maturing to bright green, fall color very showy in a mix of red to yellow. Or: found in Philadelphia, PA, USA. web: <http://www.mrmapple.com>, accessed 12.29/2017

Acer palmatum (Dissectum Group) 'Monticello Gardens' - 3-4 ft. tall x 4-5 ft. wide, habit more cascading than many in the Group, leaves red in spring and summer, holding color long, fall color brighter red than summer. web: <http://www.mrmapple.com>, accessed 12.29/2017, their own introduction found by an unnamed friend and customer.

Acer palmatum RADIANT™ - leaves smaller in size, heavily mottled white (up to 80%), new tips a bright magenta to coral pink, maturing to medium green mottled white to cream. web: <http://www.mrmapple.com>, accessed 12.29/2017

Acer palmatum 'Schmidts Woods' - leaves strap-leaf type, bright red at first, aging to emerald green with red tints, gives a nice bicolor effect when in active growth, superior colors to 'Beni Otake' per Mr. Maple growers. web: <http://www.mrmapple.com>, accessed 12.29/2017

Acer palmatum 'Seuss's Sister' - web: <http://www.mrmapple.com>, accessed 12.29/2017

Acer palmatum 'Shine Bright' - 10-12 ft. (10 years), leaves chartreuse-green, new growth tinged orangish-red, some blushes appear in summer on mature foliage too, interesting shining colors throughout year, fall colors orange to red. web: <http://www.mrmapple.com>, accessed 12.29/2017

Acer palmatum 'Yeager Red' - 15 ft. tall x 12 ft. wide, compact, full from a witches broom. Leaves rich bright red, the bloom carrying a good color even though heavily shaded, propagating stock retaining this "superior red color in all kinds of conditions" (Iseli). Or: Mike Yeager as broom on 'Bloodgood'. So, in: <http://www.iselinursery.com/downloads/>, accessed 10.31.2017, new introduction.

Acer palmatum 'Yellow Bird' - leaves with numerous small, sharp, pin-like serrations, yellow to chartreuse in summer, maturing to dark green, fall colors yellow with reddish margins. web: <http://www.mrmapple.com>, accessed 12.29/2017

Acer pseudoplatanus 'Mercedes' - so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017, listed name only, spelling apparently to avoid a trademark violation with the auto company

Acer pseudosieboldianum (Jack Frost Series) ICE DRAGON™ 'IsIID' - 7-8 ft. tall x wide, cascading to semi-pendulous, undulating branches obvious in winter Leaves finely incised, similar to orangish-red becoming green, fall tones in red, orange, and yellow. Ch: hardy and durable in USDA 4.Or, so: Iseli Nurseries, Oregon, USA, their own selection, <http://www.iselinursery.com/downloads/>, accessed 10.31.2017, new 2017 introduction.

Acer saccharinum 'Bordeaux' - leaves dark red. so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017, listed name only

Acca sellowiana BAMBINA™ 'TharFiona' - 3-4 ft. tall x wide, semi-dwarf, very compact. Leaves silvery, very showy, perhaps more so than species. Ch: USDA 7 as some (not all) species selections. So, in: <http://southernlivingplants.com/shrubs/plant/bambina-pineapple-guava>, accessed 10.31.2017. This ornamental-edible has fruit with a guava-like appearance but very complex flavors

Aesculus flava 'Burning Gold'- so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017, listed name only

Amelanchier canadensis OCTOBER FLAME® - 6 ft. tall x 3 ft. wide, columnar to narrowly ovoid, vigorous, flowers white, numerous, fall color a rich blend of medium, dark, and light red tones, very showy. Or: Edward Losely, Perry, Ohio. In: <https://www.pepinieres-minier.fr/produit/amelanchier-canadensis-october-flame-r>, accessed 12/27/2017

Berberis thunbergii GOLDEN JACKPOT® 'SMBTJ' - 2 ft. tall x wide, compact, dense, needs no pruning under most conditions, leaves bright gold as spring and summer, twigs and new tips slightly tinted orange to coral. Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Berberis thunbergii LAVA NUGGET™ 'SMBTM' - 3 ft. tall x wide, compact, leaves large (not small as dwarf clones), orangish-red in new tips, aging to dark burgundy in a uniform shade over the entire blade. Rust resistant. Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Berberis thunbergii SUNJOY TODO™ 'NCBX1' - 1.5-2.0 ft. tall x wide, compact, dense, seedless (high sterility genetics), leaves glossy, rich dark purplish-red, tips more red, bears orange fruit but seeds are hollow and not viable. Or: Dr. Tom Ranney, NC State University, as hybrid. In: http://springmeadownursery.com/plants_details.php?id=3610

Berberis thunbergii SUNJOY MINI MAROON™ 'NCBT1' - http://springmeadownursery.com/plants_details.php?id=03600

Betula 'Princesse Sturdza'- so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017, listed name only

Betula pubescens 'Rode Herfstkleur' - so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017, listed name only

Betula utilis subsp. *albosinensis* 'Cobhay Gansu Red' - bark with distinct red tints, showy. So, or, in: <http://www.junker.co.uk>, accessed 12.30.2017, their own selection from seed collected in Gansu, China

Betulia utilis subsp. *utilis* 'Cobhay Amber' - vigorous, new bark in amber tones, later more white, leaves a better yellow than all clones in the Junker collection. Or, so: <http://www.junker.co.uk>, accessed 12.30.2017, their own selection from seed

Betulia utilis subsp. *utilis* 'Cobhay Sentinel' - vigorous, more upright, narrow. Or, so: <http://www.junker.co.uk>, accessed 12.30.2017, their own selection from seed

Broussonetia papyrifera 'Jungeng' - leaves golden-yellow at first, later yellowish-green, bright gold again in fall. USPP applied for October 26, 2017, described as unique. It seems obvious that the patent examiners have no clue than 'Golden Shadow' sounds identical and is established in the trade.

Broussonetia papyrifera 'Jlnhudie' - leaves irregularly centered greenish-yellow like a small tree shape, very wide margins of orangish-gold, covering up to 85% of the blade. USPP applied for October 26, 2017 by Huaming, Wang, Suiping, China

Buddleia alternifolia UNIQUE 'PMOORE12' - 1m tall x 70cm wide, compact, smaller the speices tyical, flowers lilac, very fragrantOr: Peter Morre, Stockbridge, Hampshire, England, selection. Web: <http://koju.de/en/assortmentsshop/deciduous-trees-and-shrubs/1391/buddleja-alternifolia-unique-pmoore12?c=119>, accessed 12.29.2017

Buddleia davidii REVE DE PAPILLION® RED 'Bozcraz' - 2m tall x wide, flower corolla a rich violet-red, said to be bred from 'Miss Ruby' and of similar colors, reblooming in summer. Or: Scott Trees, USA. In: <https://www.pepinieres-minier.fr/produit/buddleja-davidii-reve-de-papillon-r-red-boscraz-cov>, accessed 12.27.2017.

Buddleia SUMMER SIPS™ SANGRA 'SRPbudsan' - 3-4 ft. tall x wide, dwarf, compact, said to be the first dwarf and sterile red-flowered cultivar in the genus. Flowers in dense panicles, violet-red to sangria wine red. Leaves dark green. So, in: Star Roses and Plants, online catalog 2018, https://issuu.com/starrosesandplants/docs/2018_catalog, accessed 10.31.2017

Callicarpa 'Cardinal' - 1.5m tall (10 years), fruit small, purple, abundant, fall leaf color in bright red to purple shades. So: <http://www.junker.co.uk>, accessed 12.30.2017

Carpinus carolinana 'Sentinel Dries' - so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017, listed name only

Carpinus betulus 'Williamson's Gold' - habit as species but denser, slower growth, golden leaf in spring and summer, light green to gold in fall. Or: Simon Williamson. Web: <http://www.genesis-plantmarketing.co.uk/portfolio/carpinus-x-betulus-2/>, accessed 12.22.2017

Cedrus atlantica 'Green Wave' - 4 ft. tall x 8 ft. wide, spreading, tiered, in flat planes, sturdy. Or: Morris Arboretum, as witches broom on 100 year old 'Glauca'. So, in: <http://www.iselinursery.com/downloads/>, accessed 10.31.2017, introduced 2017

Cercis canadensis BLACK PEARL™ 'JN16' - web: <http://www.gardendebut.com/plant/Cercis-Cercis-canadensis-JN16>, accessed 12.28.2017

Cercis canadensis 'Mardi Gras' - listed name USNA, restricted accession, website accessed 12.26.2017

Cercis (presumed *chinensis*) 'Chongyang' - flowers blooming in both spring and fall, the later abundant very high and reliable. USPP applied for October 26, 2017

Chamaecyparis lawsoniana PINPOINT™ BLUE 'SMNCLBF' - 15-20 ft. tall x 5-7 ft. wide, columnar. Leaves feathery, blue all year, staying colorful inw inter. So, in: Spring Meadow Nursery, http://springmeadownursery.com/plants_details.php?id=11820, accessed 10.31.2017



Chamaecyparis lawsoniana 'Sunny Smile' - Habit narrowly upright. Leaves "yellow-green and creamy white", general terms, most of the first year spray bright yellow but on the inner and lower leaves of the shoot they are cream to white, not sharply bicolored from a distance but of two tones on close inspection. Pat, or: US# 25456 on April 21, 2015 to Frank Schnupper, Westerstede, Germany as chance seedling 2004, possibly from 'Stardust'. The image above is from the US Plant Patent application.

Chamaecyparis lawsoniana PEARLY SWIRLS™ - semi-dwarf to very compact, pleasantly loose and informal with some longer, more strong shoots, subglobse at first, foliage 30-60% white chimera, both on the shoot tips and via suffusions and true chimeric variegations, the base color a bluish-green that does not contrast too much.

Chamaecyparis lawsoniana PINPOINT™ BLUE AND GOLD 'SMNCLGTB' - 15-20 ft. tall x 5-7 ft. wide, columnar to narrowly pyramidal. Leaves in feathery plumose planes, two-toned, tips "lime-gold" becoming rich powdery blue. So, in: Spring Meadow Nursery, http://springmeadownursery.com/plants_details.php?id=11820, accessed 10.31.2017

Chamaecyparis lawsoniana SOFT SERVE® GOLD 'FARROWCGMS' - The original SOFT SERVE is a *C. pisifera* cultivar and this is not. http://springmeadownursery.com/plants_details.php?id=11980

Chamaecyparis nootkathensis 'Aldrich Mountain' - 25 ft. tall x 15 ft. wide, broadly upright to conical. Leaves with foliage "lush, lacy, almost frond-like" (Iseli). Or: Alrich Mountains, central Oregon, USA, considered by botanists to be a very old, isolated and relic population. This stock was collected by John Day. So, in: <http://www.iselinursery.com/downloads/>, accessed 10.31.2017, introduced 2017. Note, id: needless to say not all collections will be the same clone or identical and this name or a similar one ('Mount Aldrich') is used by other nurseries such as Buchholz. It has been considered a form of *Thuja plicata* and even an unlikely cross to it. This website provides more detail on the population: <http://blog.conifercountry.com/2014/07/aldrich-mtns/>

Chamaecyparis obtusa 'Snowblast' - irregular, somewhat open, feathery pyramid. Needles bright green, very creamy to white in new tips, later marked green and white. Or: Buchholz Nursery

Chamaecyparis pisifera 'Steel Wool' - web: <http://www.mrmapple.com>, accessed 12.29/2017

Chimonanthus praecox 'Cobhay Golden Treasure' - habit more compact, erect than typical, flowers "pure butter yellow", earlier than some forms, leaves most lost by bloom time, fragrance very high. Or, so: <http://www.junker.co.uk>, accessed 12.30.2017, their own selection

Chionanthus virginicus 'Grancy Greybeard' - web: <http://www.mrmapple.com>, accessed 12.29/2017

Cornus alba WINTER CANARY™ Gracan' - web: <http://www.gardendebut.com/plant/Winter-Canary-Dogwood>, accessed 12.28.2017

Cornus controversa 'Kanuma' - leaves with unusual chimera, the lower half to 2/3 of the blade light green heavily suffused yellow between the secondary veins, the leaf apex typical green in the upper third or so, the transition a set of unusual more yellow miniature trees of clear yellow, zig-zag of gold and green in the lower portions overall, older leaves less clear and overall light green suffused light in yellow. web:

<http://www.mrmapple.com>, accessed 12.29/2017. Lsp: Dawes Arboretum D2013-0038-.001

Cornus elliptica LUCKY LEPRECHAUN™ 'NCCE1' - 13 ft. tall x 4 ft. wide. Flowers abundant, bracts greenish-cream at first, later more wide. Leaves dark green, mildew resistant. Or: Dr. Tom Ranney, North Carolina State University. So, in: Star Roses and Plants, online catalog 2018, https://issuu.com/starrosesandplants/docs/2018_catalog, accessed 10.31.2017

Cornus kousa var. *chinensis* BLUE RAY™ 'JN6' - web: <http://www.gardendebut.com>, accessed 12.28.2017

Cornus mas SAFFRON SENTINEL™ 'JFS PN4Legacy' - or, in: https://www.jfschmidt.com/pdfs/JFS_New_2018.pdf, accessed 12.22.2017

Cornus officinalis CHEER™ 'KROY' - or, in: <http://www.songsparrow.com>, accessed 12.28.2017, New for 2018

Cornus officinalis JOY™ 'LROY' - or, in: <http://www.songsparrow.com>, accessed 12.28.2017, New for 2018

Cornus racemosa IRISH SETTER™ 'J.N. Red Stem' - web: <http://www.gardendebut.com>, accessed 12.28.2017

Corylus americana SUNDROPS™ 'JROY' - leaves bright yellow, holding color "much of summer", fall colors varies in shades of red, orange, purple to yellowish-green. Or: Roy Klehm. or, in: <http://www.songsparrow.com>, accessed 12.28.2017, New for 2018

Corylus avellana 'Anaconda' - branches contorted. so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017, listed name only

Crataegus ellwangeriana 'Fire Ball' - so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017, listed name only

Crataegus heldreichii 'Chelmos' - leaves gray. so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017

Crataegus tracyi 'Calamity Creek' - Or: selected from Davis Mountains- so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017

Cryptomeria japonica 'Champagne' - white-variegated version of white-tipped 'Nana Albospica' with more color, faster than it, 6 ft. tall in 10 years. Camellia Forest Nursery, www.camforest.com, accessed 12.22.2017

Cytisus scoparius SISTER DISCO™ 'SMNCSCRY' - 1-3 ft tall, short for this species. Flowers distinctly bicolor, rich gold marked dark red, similar to 'Madame Butterfly' but on neater, smaller plants. So, in: http://springmeadownursery.com/plants_details.php?id=22410, accessed 10.31.2017

Cytisus scoparius SISTER REDHEAD™

Cytisus scoparius SISTER ROSIE™

PENDING - INVALID POST-1959 LATIN NAME - x *Cupressocyparis leylandii* 'Pyramidalis Aurea' - 4m tall x 1.5m wide, pyramidal but somewhat open, elegant, and irregular, foliage sprays a very rich golden, becoming lime green, thus a mix of those general colors. Or: Tesi and Ubaldo, Italy. In: <https://www.pepinieres-minier.fr/produit/cupressocyparis-leylandii-pyramidalis-aurea>, accessed 12.27.2017

Edgeworthia chrysantha 'Hawksridge' - 4 ft. tall x wide, about half the size of 'Snow Cream' and other similar, improved traits. In: Camellia Forest Nursery, www.camforest.com, accessed 12.22.2017

Euonymus americanus 'Green Tapestry' - leaves variegated. so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017

Euonymus cornutus 'El Torro' - larger winger than species typical- so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017

Fagus sylvatica 'Inanna' - so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017, listed name only

Fargesia murielae 'Tansley Gem' - habit more compact, smaller, Or: Whitelea Nursery, Web: <http://www.genesis-plantmarketing.co.uk/portfolio/fargesia-x-murielae/>, accessed 12.30.2017

Ginkgo biloba 'Kopista' - web: <http://www.mrmapple.com>, accessed 12.29/2017

Ginkgo biloba 'Yellow Petticoat' - web: <http://www.mrmapple.com>, accessed 12.29.2017

Hamamelis virginiana 'Phantasm' - flower tepals yellow, very numerous, covering the tree, darker and earlier (by up to 2 weeks) than 'Harvest Moon', also narrower and more crimped than it.

Helwingia chinensis PEARLY TWIRLY™ 'Dhhs073' - 5 ft. tall x 4 ft. wide, graceful, leaves much narrower than species (and we have studied numerous clones), broadly linear to linear-lanceolate, new growth light olive green tinged bronze, coming a light to medium olive in summer. Flowers apparently as species. Or: Dan Hinkley. In, Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Heptacodium miconoides TEMPLE OF BLOOM™ 'SMHMRF' - 6-10 ft. tall x wide. Differs from the species as random seedlings in being more compact and earlier in season to flower. So, in: http://springmeadownursery.com/plants_details.php?id=29280, accessed 10.31.2017

Holboellia brachyandra HEAVENLY ASCENT® 'HWJ1023' - vinous as species, generally to 12 ft. tall if supported, flowers numerous, pure white on contrasting red pedicels, melon-like scent, fruits purple, edible. Or: Dan Hinkley. Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Hypericum x inodorum FLORALBERRY™ CHAMPAGNE 'KOLCHAM' - 3 ft. tall x wide, semi-evergreen where hardy, flowers numerous, butter yellow, numerous exerted stamens add to merit, fruit creamy-white and showy in fall. Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Hypericum x inodorum FLORALBERRY™ CHARDONNAY 'KOLCHAR' - Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Hypericum x inodorum FLORALBERRY™ PINOT 'KOLPINOT' - Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Hypericum x inodorum FLORALBERRY™ ROSE 'KOLROS' - Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Hypericum x inodorum FLORALBERRY™ SANGRIA 'KOLSAN' - Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Ilex GOLDEN OAKLAND™ 'Magden' - as OAKLAND™ but leaves irregularly margined light yellow, variable in marginal depth, chimera often at 40-60% of the surface. So, in: <http://southernlivingplants.com/trees/plant/golden-oakland-holly>, accessed 10.31.2017. It appears to be comparable to 'Solar Flare' (aka 'Unique'), a gold-margined sport of OAKLAND™ which has also been offered as OAK LEAF™.

Ilex glabra STRONGBOX™ 'Ilexfarrowtracey' - 2-3 ft. tall x wide, mounded to flat-subglobose, very dense, useful as a boxwood alternative in colder areas. Leaves dark green, staying green all year, diseased resistant (unspecified species). So, in: http://springmeadownursery.com/plants_details.php?id=46970, accessed 10.31.2017

Ilex LUCKY LEAF™ 'EN1' - web: <http://www.gardendebut.com>, accessed 12.28.2017

Ilex x meserveae GENTLE™ 'Annys Dwarf' - 70cm tall x 50cm wide, compact, dwarf, flowers numerous, white tinged pink, leaves glossy medium green, tinged purple in winter, cold hardy to -25 deg C. Aw: GrootGroenPlus Bronze Medal 2017. Pat: EUR 20160499. Or: Andre van Nijnatten. In, web: <https://www.plantipp.eu/en/Plants/ilex-meserveae-gentle-annys-dwarfpbr-2/>, accessed 12.30.2017

Ilex opaca 'Pride Yellow' - conical, dense, leaves rich green, fruit canary yellow, abundant, more cold hardy. Or: Orlando Pride.

Ilex rotunda RED DOT® - Web: <https://www.pepinieres-minier.fr/produit/ilex-rotunda-red-dot-r-minzong-cov>, accessed 12.27.2017

Ilex SHARUM'S SHAMROCK™ 'EN2' - web: <http://www.gardendebut.com>, accessed 12.28.2017

Ilex verticillata BERRY HEAVY™ GOLD 'Roberta Case' - 6-8 ft. tall. fruit abundant, rich golden-yellow, amongst the brightest and abundant yellow fruit in the genus. Or: Fred Case, Saginaw, Michigan, USA. Video: <http://springmeadownursery.com/plant/48350>

Ilex vomitoria 'Mike James' - 10 ft. tall x 6 ft. wide, openly and loosely pyramidal, often in a series of narrow pyramidal leaves, very finely textured, leaves much reduced in size, 2.0-2.8 cm long x 0.3-0.6 cm wide, entire, subentire, or lightly toothed, dark green.

Illicium flordanum PARADISE SONG™ 'MONdnis' - 10 ft. tall x 6 ft. wide, leaves dark olive green, Monrovia photo shows gold mottling in the blades but the description does not mention this, flowers dark maroon, anise-scented. Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Illicium ORION™ 'NCIH2' - 3 ft. tall x 5 ft. wide. Flower tepals nearly white at maturity, stamens more cream colored, very large diameter.

Illicium SCORPIO 'NCIH1' - 5 ft. tall x 3 ft. wide. Flowers tepals a bright pinkish-red to rose-red, numerous, very large.

Itea virginica SCENTLANDIA™ 'SMNIVDFC' - 2-4 ft. tall x wide, compact, flower panicles numerous, sweetly scented, "handsome fall color", more cold hardy to -20 deg. F.

Juniperus virginiana subsp. *silicicola* BLUE SPIRES™ 'RLH-JS2BS' - web: <http://www.gardendebut.com>, accessed 12.28.2017

Koelreuteria paniculata 'Starhill Compact' Or: Starhill Arboretum. so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017

Lagerstroemia indica MIMIE® FUCHSIA - web: <http://www.sapho.fr/gb/trees-and-shrubs/268-lagerstroemia-indica-mimie-fuchsia-dablage01-.html>, accessed 12.29.2017

Liriodendron tulipifera 'Gursztin' - subglobose, dwarf- so: <http://www.pavia.be/catalogue/>, accessed 12.30.2017

Lonicera japonica PINK APERITIF® 'Crowthlon' - <https://www.pepinieres-minier.fr/produit/lonicera-japonica-pink-aperitif-r-crowthlon-cov>, accessed 12.27.2017

Loropetalum chinense 'Blonde 'n' Gorgeous' - web: http://www.pma.com.au/Plants/Plant.aspx?plant_id=2144398790, accessed 12.27.2017

Loropetalum chinense 'Flame 'n' Gorgeous' - web: http://www.pma.com.au/Plants/Plant.aspx?plant_id=2144398791, accessed 12.27.2017

Malus IVORY SPEAR™ 'JFS KW214MX' - or, in: https://www.jfschmidt.com/pdfs/JFS_New_2018.pdf, accessed 12.22.2017

Malus RASPBERRY SPEAR™ 'JFS KW213MX' - or, in: https://www.jfschmidt.com/pdfs/JFS_New_2018.pdf, accessed 12.22.2017

Magnolia stellata CRAZY LADY™ 'KLMXX' - flowers numerous, tepals near white, "uniquely and alluringly twisted". Or: Roy Kleim as open-pollinated *M. stellata* 'Jane Platt'. In: <http://www.songsparrow.com>, accessed 12.28.2017, New for 2018

Mahonia eurybracteata SWEET WINTER® - 90-120 cm tall, compact, dense, leaves narrow as species, same ferny look without harsh spinose teeth, widely spaced, dark green, racemes large, lightly scented, arching-spreading, flower corolla yellow to yellowish-green, fruit blue to black, showy. Said to be less incised in the blade, these more twisted or curved than 'Soft Caress' which derives from the same species, also taller than 'Soft Caress' in time. The two are an obvious pair for comparative, same site evaluations. <https://www.pepinieres-minier.fr/produit/mahonia-eurybracteata-sweet-winter-r-minganpi-cov>

Mahonia repens DARKSTAR® 'MonRWS' - 18 in. tall x 48 in. wide, mounded, spreading as species, leaves rich, dark purple, thin red midrib, showy yellow flowers in spring, numerous fruit of bluish-black. Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Metasequoia glyptostroboides AMBER GLOW™ 'WAH-08AG' - 30-35 ft. tall (25 years), compact, dense, pyramidal, moderately vigorous, much more dense than 'Ogon' and other gold cultivars to date (November 2017). Leaves bright yellowish-green to chartreuse the first year, twigs a light amber color and contrasting, later more of a pale green to lime, holding well in heat and sun (more so than parent 'Ogon'), occasionally "hint of burgundy" appear in new tips, these may be in fact be more orangish-gold by some reports, but named primarily for the rich amber or orange tones in fall. Pat, or: US PPAF on November 9, 2017 to William Head, Seneca, South Carolina, as seedling of 'Ogon', thought to be pollinated by 'Sheridan Spire'. While the patent app says it "originated in a controlled breeding program", this particular selection is defined as "open pollinated" and the male "presumed to be", thus not controlled in this case. In: Star Roses and Plants, also Hawksridge Farm, catalogs, accessed 11.11.2017.

Metasequoia glyptostroboides 'Bizzarger' - habit erect, open, highly contorted. Leaves all twisted, often curled from the apex. Or: Bil Barger before 2014. So, in: <http://www.coniferkingdom.com>, accessed 10.31.2017, listed under new plants

Metasequoia glyptostroboides 'Featherduster' - leaves pale green, "wispy", very long for the species, fall color yellow (not amber nor copper). Or: Tom Cox, Ciox Arboretum, Canton, Georgia from seed supplied by the Arnold Arboretum from China. In: www.brokenarrownursery.com, accessed 12.29.2017

Metasequoia glyptostroboides SHAW'S LEGACY™ 'Raven' ('Peter Raven' Dirr 2017 website reference below) - 70-100 ft. tall, bark more deeply furrowed, overall more vigorous than random seedlings and it's cohorts in the same planting, up to 3 ft. per year when young, more uniformly pyramidal, somewhat denser but not overall compact, low branching good, a neat, clean outline or silhouette, lacking random extending branches and branchlets as so many seedlings provide, more uniform spacing, Dirr in his articles reports "darker green needles" but the MBG do not mention that. Dr.: "better resistance to foliar disease" MBG website, species not specified. Or: one of several trees planted at the Missouri Botanical Garden near the Lehmann Building in 1952. Ns: the name honors Dr. Peter Raven, noted botanist and garden Director, the name name SHAW honors Henry Shaw who founded the MNG in 1859. MBG's website confirms the true cultivar name to be just the surname of the honoree. web: <https://www.hmiadvantage.com/dr-dirrs-tree-spotlight-metasequoia-glyptostroboides/>, also <http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=e309>, both accessed 11.11.2017

Metasequoia glyptostroboides 'Swamp Thang' - habit compact, upright, branches thick, symmetrical, bark exfoliating in dark chocolate brown. Or: Tom Cox, Cox Arboretum, Canton, Georgia as seedling. web: <http://www.mrmapple.com>, accessed 12.29.2017, also offered by <http://www.brokenarrownursery.com> at this same time.

Myrtus communis 'Redside' - 20 in. tall., compact, stems tinted red, leaves densely held, red-tinged below, drought tolerant, flowering abundant, USDA 8. Or, web: <http://www.cistus.com>, their own hybrid of 'Compacta' and 'Anne McDonald'

Nandina domestica MAGICAL DAYBREAK™ 'Monfar' - web: http://www.pma.com.au/Plants/Plant.aspx?plant_id=2144398968

Nandina domestica 'Sunset in Paradise' - web: <http://www.genesis-plantmarketing.co.uk/portfolio/nandina-domestica-3/>, accessed 12.22.2017

Osmanthus heterophyllus 'Gold Variegated' - leaves "cream, yellow, blended with green...like 'Goshiki' yet the color pattern is distinct". Or, in: www.brokenarrownursery.com, their own sport. Ns: this easily confused name is not recommended and a more distinct name might be offered.

Quercus alba 'Frost Bite' - so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017, listed name only

Quercus bicolor AMERICAN DREAM® 'JFS0KW12' - 50 ft. tall x 40 ft. wide, broadly pyramidal, vigorous, "excellent density", leaves glossy, bright green, yellow shades in fall, USDA 4 hardiness, resistant to both anthracnose and powdery mildew. Web: <http://www.acornfarms.com/responsive/velocity/15AFCategories.php?pullname=QUERCUS%20BICOLOR%20AMERICAN%20DREAM>, accessed 12.22.2017, also <http://www.jfschmidt.com/introductions/americanream/index.html>, same date

Quercus bicolor 'Shiny Fountain' - branches arching, leaves more glossy. so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017

Quercus 'Belle d'Aquitaine' (*Q. rysophylla* x *Q. shumardii*) - so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017, listed name only

Quercus macrocarpa 'Extra Corky' - thicker cork as the name implies- so: <http://www.pavia.be/catalogue/>, accessed 12.30/2017

Quercus nuttallii 'Corley's Firecracker' - broadly pyramidal, moderately compact. Leaves bright red in new tips throughout spring and summer, this color persisting longer than cultivars 'QNSTD' and 'QNMTF'. Or, pat: US# 28585 on October 31, 2017 to Douglas Corley, Monticello, Florida USA as whole plant mutation in 2007

Quercus phellos KINGPIN™ 'Greenenvy' - 60 ft. tall x 45 ft. wide, vigorous, pyramidal at first, later more upright-ovoid, leaves darker and more lustrous than species typical. Proven more durable and urban tolerant. Pat: US# 24837. Web: <https://athenatrees.com/our-introductions/kingpin-willow-oak/>, accessed 12.29/2017

Quercus robur 'Bleu d'Esneaux' - leaves more bluish-green- so: <http://www.pavia.be/catalogue/>, accessed 12.30.2017

Philadelphus LITTLE WHITE LOVE® 'Snowdwarf' - 1m tall x wide, compact, "many upright shoots", flowers numerous, to 4cm wide, white, fragrant, very full double. Ns: registered trademark follows Kordes website.

Photinia x fraseri LOUISE™ 'McLarlou' - leaves margined pink to cream in new tips, central color bright red to reddish-green, becoming margined near white on medium green, very irregular marginal chimera, overall 15-40% surface but quite variable, usual an asymmetrical chimera with one side more white than the other. Or: McLaren's Nurseries, UK, named for one of the owner Robert McLaren's daughters Louise.

Photinia x fraseri RED CAP CORALLINA™ 'Bourfrits' - in: <http://www.genesis-plantmarketing.co.uk/portfolio/photinia-x-fraseri-dress/>, accessed 12.22.2017

Photinia RED FURY™ 'Parsur' - 8-10 ft. tall x 5-6 ft. wide, leaves reddish-brown at first, very heat tolerant. USDA 7 hardiness. Pat: USPP# 19390. web: <http://www.gardendebut.com>, accessed 12.28.2017

Physocarpus opulifolius SUMMER MOON™ 'Tuimon' - 2m tall x wide, vigorous, new leaves deep purplish-green to copper-orange, later more red to purple or dark green tinged red, reports and images vary widely, flower heads large, subglobose, numerous, cream tinged pink and red in the center, quite showy. Or: Westcare Gardens, UK

Picea abies ROYAL SPLENDOR® Noel' - 40 ft. tall x 25 ft. wide, symmetrical, young trees dense to the base, more narrowly pyramidal, formed from narrower branch angles and incurved limbs from the upper to basal portions, "devoid of drooping, pendulous tertiary branchlets which typical this species" (NDSU). It is not columnar but is intermediate from a species broad pyramidal form (lacking pendulous shoots) to the narrower, more columnar clones. Leaves with a needle bright green than typical, not a somber or dark olive as some forms, semi-glossy. not as blue as some 'Cupressina' clones. Ch: USDA 3. Or, web: North Dakota State University, http://ndsuresearchfoundation.org/files/pdf/Hort%20PDFs/royal_splendor_norway_spruce.pdf, introduced 2013 including Oregon Pride Nurseries (but not in their online catalog, accessed 10.31.2017), and Iseli Nurseries. So, in: <http://www.iselinursery.com/downloads/>, accessed 10.31.2017, "new" in catalog in 2017 thought with limited availability from them claimed by NCSU for 2013,

Picea glauca (Conica Group) 'Little Dipper' - 6 ft. tall x 4 ft. wide, very compact, a perfect conical shaper, faster than parent JEAN'S DILLY® from

which it sported. Leaves grayish-green, branches strong, thick. So, in: <http://www.iselinursery.com/downloads/>, accessed 10.31.2017, their own selection, new in 2017

Picea rubens 'Lake Street Steeple' - 20 ft. tall x 4 ft. wide, pendulous in the narrowly columnar to fastigiata "inverted" or inversa style, some tiers wider than others. Or: Harriet Roberts, grandmother of Tim Wolfe, plants it in the late 1960's bear the Lake Street Garden Center, New Hampshire. So, in: <http://www.iselinursery.com/downloads/>, accessed 10.31.2017, their own introduction.

PENDING - *Pinus flexilis* 'Cheyenne' Iseli form not others - 15 ft. tall x 10 ft. wide, "tidy, attractive...uniform...compact" (Iseii). Or: from seed collected near Cheyenne, Wyoming, near the eastern edge of the species' range. Ch, lu: cold hardy to USDA 4, very durable, tolerance of weather extremes, including dry soils. Common place names are discouraged in cultivar names as they are easily confused with provenance names for seed strains. So, in: <http://www.iselinursery.com/downloads/>, accessed 10.31.2017, their own introduction. Ns, id: the firm of Stanley and Sons, used the name 'Cheyenne' for one of Jerry Morris' dwarf, witches broom with just 1.5 in. of growth a year, clearly not what Iseli is offering.

Podocarpus macrophyllus MOOD RING™ 'Sosa' - Habit compact, internodes often 5mm. trunk stright, "medium tapering", "limited branching without pruning". Bark at maturity with a tortoise shell pattern. Leaves reddish-brown to bronzy-pink in new tips, 6 cm long x 7 mm wide, about 27 per 12 cm branch. Or, pat, US# 28583 on October 31, 2017 to Kenichi Kawaguchi, Sosa, Japan. In: marketed in the US by Southern Living Plants as this trademark name, c. 2017

Podocarpus macrophyllus ROMAN CANDLE™ 'Miu' - Leaves with new tips yellowish-white to cream in color, later mottled yellow and green or in many cases with a cream margin and a medium green central line.. Or, pat, US# 28582 on October 31, 2017 to Kenichi Kawaguchi, Sosa, Japan as seedling from breeding program 2002. Ns, in: marketed in the US by Southern Living Plants under this trademark name, c. 2017

Potentilla fruticosa BELLA BELLISSIMA™ - 2-3 ft. tall, mounding, flowers numerous, petals bright pink, rich but not harsh, one of the better true pinks in this species.

Potentilla fruticosa BELLA SOL™ 'Hachdon' - 2-3 ft. tall, mounding, flowers numerous, petals rich orange, a sort of marmelade color, very bright but not harsh, hardy to USDA 2

Potentilla fruticosa CHEESEHEAD™ 'SMPFMY' - 2 ft. tall x wide, fine-textured, neat, compact, leaves dark green, flowers numerous, medium yellow. Very low maintenance. Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Prunus incisa ZUZU™ 'Rinpo' - 3-5 ft. tall by wide, dense, flowers fully double, 50+ petals, light pink at the edges, medium pink towards the centers at first. Web: <http://springmeadownursery.com/plant/60230>, accessed 12.22.2017

Prunus laurocerasus JADE ENCHANTRESS™ 'Monarone' - 3 ft. tall x 6 ft. wide, leaves glossy, dark green, lanceolate-elliptic, flowers numerous, creamy-white, fragrant. Disease resistant. Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Prunus maritima 'Orange Marmalade' - 8-12 ft. tall, "exceptional vigor", flowers white, abundant, fruit orange, also abundant, larger than species typical, flavorful, consistently high quality. Or, in: www.brokenarrownursery.com, accessed 12.29.2017, their 2017 introduction

Prunus mume 'Yuh-Hwa' - unusual semi-double in medium pink with a distinctly lighter pink picotee. Or: Mike Yablonski. in: Camellia Forest Nursery, www.camforest.com, accessed 12.22.2017

Prunus persica PEPPERMINT TWIST™ 'Grepeptwst' - 10-15 ft. tall x 5-10 ft. wide, branches twisted, spiraled, and weeping, giving yearround interest, flowers medium pink in bud opening to light or blush pink. web: <http://www.gardendebut.com>, accessed 12.28.2017

Prunus virginiana SUCKER PUNCH® 'POO2S' - 20-30 ft. tall x 18-20 ft. wide, subglobose, notably not sucking as the species is common to do. Leaves green at first, later dark purple. Or: Fort Collins Nursery. Pat: US# 25767. So: <http://www.baileynurseries.com/new-varieties-2018/#show:4141>, accessed 10.31.2017. A retail source is Forest Farm, <https://www.forestfarm.com/prunus-virginiana-sucker-punch-prvi082>

x *Pyracomeles* JUKE BOX™ 'NCXP1' - 1-3 ft. tall x wide, compact, subglobose, thornless unlike parent genus *Pyracantha*, *Buxus* or fine-leaves holly appearance, but lacking diseases of those genera, leaves glossy, green. cold hardy to 0 deg. F. This genus is a cross of *Pyracantha* and *Osteomeles*. web, in: http://springmeadownursery.com/plants_details.php?id=61900

Rhapiolepis umbellata TICKLED PINK™ 'Cherubs Cup' - web: <http://www.gardendebut.com>, accessed 12.28.2017

Rhus aromatica 'Fine Textured Compact Select A' - 1.2m tall x 2.1m wide (8 years), compact, dense, similar to 'Gro-lo' but taller and narrower, more freely branching than 'Gro-lo', requiring no shearing, leaves smaller than species typical and 'Gro-lo', 14 leaflets per tertiary branch, 2.5cm long x 1.5cm width, laterals even smaller, giving a finer texture, red autumn coloration. Resistant to mites. Roots readily from cuttings. Pat, or: USPP# 28669 on November 21, 2017 to Michael D. Yanny, Milwaukee, Wisconsin as chance seedling 2011 in nursery in Monomonee Falls, Wisconsin, assigned to JN Plant Selections.

Rhus aromatica 'JN Free Branch Select B' - compact, freely branched, leaves larger than 'Fine Textured Compact Select A'.

Sambucus racemosa WELSH GOLD™ 'Walfinb' - 1.2m tall x 1.0m wide, compact, fine-textured leaves highly incised, golden-yellow at first, later more chartreuse to medium yellow and greenish-yellow, fruit red and often numerous, contrasting nicely with the foliage in summer and fall. Pat: Euro PBR 35851. Web: <https://www.plantipp.eu/en/Plants/sambucus-racemosa-welsh-gold-walfinbpbr-2/>, accessed 12.22.2017

Sambucus x strumpfii (*nigra* x *racemosa*) SERENADE® 'Jonade' - 1.5m tall x 2m wide, erect, well-branched, leaves glossy purplish-brown, tinged red to orangish-red at first, becoming golden-yellow tinged bronze, later light to medium green, strongly and sharply toothed, not classically incised, fall colors red to purple, flowers abundant, cream-whiter, fruit black. In, web: <http://www.sapho.fr>, accessed 10.31.2017

Sorbaria sorbifolia PINK HOPI® 'CIYSIRB05' - In, web: <http://www.sapho.fr>, accessed 10.31.2017

Spiraea GOLDEN KUPCAKE™ 'RLH-SBGK' - 2 ft. tall x 3 ft. wide, compact, leaves bright yellow to chartreuse-yellow, flowers medium pink and contrasting, not as harsh or magenta a pink as some modern gold-leaved clones. Web: <http://www.gardendebut.com>, accessed 12.28.2017

Spiraea x bumalda RED LACE™ 'Greredlac' - 2-3 ft. tall x 4-5 ft. wide, moderate vigor, leaves rich bluish-green, flower heads dark pink, a bright, near magenta shade or hot pink but older flower fading to paler medium pink shades. web: <http://www.gardendebut.com>, accessed 12.28.2017

Stachyurus yunnanensis COPPERFLAME™ 'Djhgstcynis' - 12 ft. tall x 8 ft. wide, tall shrub, new growth tinged orange and red, becoming an usual silvery-jade or greenish-silver color, flowers pendulous, greenish-yellow. Or: Dan Hinkley. Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Stachyurus praecox MORNING DEW™ 'MonSilrlef' - 6 ft. tall x 4 ft. wide, leaves margined chartreuse to near yellow in new tips, later a silverygreen margined cream, the edges irregular with a chimera about 10-15% of the blade surface. Or: Dan Hinkley. Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

Ternstroemia gymanthera HUNNY BUN® 'HOHB' - 4-5 ft. tall x wide, mounding to flat-subglobose in time, leaves golden-yellow, tinged orange in new growth, later more yellow to gold shades, apparently more compact and smaller than existing gold-leaved selections. web: <http://www.gardendebut.com>, accessed 12.28.2017

Thuja occidentalis TINY TOT™ 'SMNTOBAB' - 1-2 ft. tall x wide, dwarf, globose to subglobose, slightly taller than wider in most cases, "swirling fans of deep green foliage", has those shell-like clusters of foliage, seedling of 'Brandon', faster than 'Danica' or 'Hetz Midget'. In: http://springmeadownursery.com/plants_details.php?id=84040, accessed 12.27.2017

Thuja plicata FLUFFY™ 'SMNTPGF' - 5-10 ft. tall, narrowly pyramidal, somewhat open, slightly plumose, hence "fluffy", dense at the base with age, bright golden-yellow the first year, sunburn resistant, holding color well into winter, more deer resistant than gold T. *occidentalis* in general, interior and older foliage a medium to dark green and this contrasting,

Thujopsis dolabrata 'Jurassic Park' - leaves, sprays thicker and larger than species typical, giving a more primitive or prehistoric look, also more tolerant of growing conditions in the originator's plantings. Or: Camellia Forest Nursery, www.camforest.com, accessed 12.22.2017

Thujopsis dolabrata 'Tonys Best Variegated' - improved 'Variegata' with more chimera and color, cream markings. Or: Cox Arboretum, Canton, Georgia. In: Camellia Forest Nursery, www.camforest.com, accessed 12.22.2017

Tilia SILVER DOLLARS™ 'Sildozam' (*T. cordata* x *T. tomentosa*) - 45 ft. tall x 30 ft. wide, broadly pyramidal, compact, symmetrical, leaves dark green, very highly silver-white tomentose below as in *T. tomentosa*, flowers creamy-white, can be showy. Japanese beetle resistant. USDA 4. Or, in: <http://www.lakecountynursery.com/lcns%20sell%20sheets/SilverDollars.pdf>, accessed 12.30.2017, their own introduction and hybrid.

Viburnum lentago HOMEFREE™ 'UMN870517' - 12-15 ft. tall x 8-10 ft. wide, erect, vase-shaped. Leaves resistant to powdery mildew, bright, medium green, later more purplish-red in fall also with some orange and yellow possible. Flower and fruit showy much as the species. Ch: to -30 deg. F. Or: University of Minnesota, introduced 2015. It can replace their 1994 introduction 'Emerald Triumph' where mildew is a concern.

Viburnum tinus SECRET VILLAGE® 'Lisspurp' - 2m tall x 1m wide, dense, erect, new growth bronze to copper-red, showy, later a dark green, flowers in red buds which open white, lightly scented, very abundant. in: http://www.genesis-plantmarketing.co.uk/plant-brochure/?plant_id=1025, accessed 12.22.2017

Weigela florida GOLDEN JACKSPOT® 'Monrigney' - 6 ft. tall x wide, leaves very bright golden-yellow, "perhaps the brightest weigela yet", holding this color all season, flowers rich violet-red in bud, opening reddish-pink to deep pink, long show of bloom. Web: <http://www.monrovia.com/our-2018-new-plants-collection/>, accessed 12.27.2017

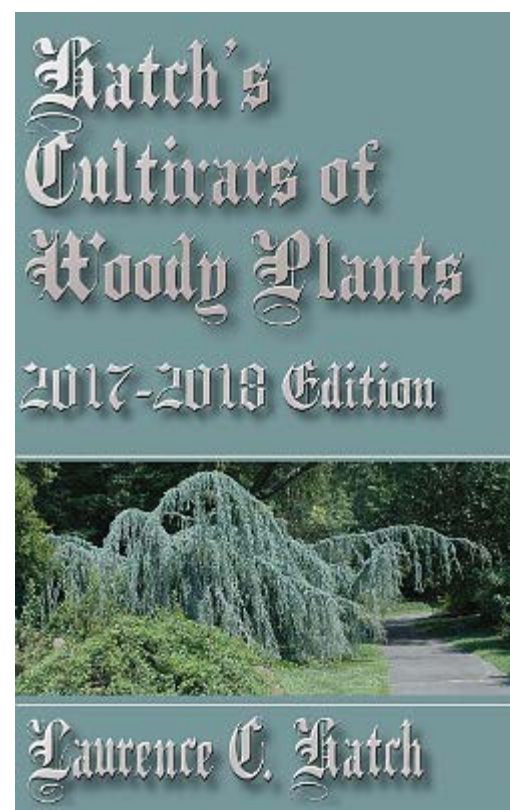
Weigela florida MAGICAL RAINBOW™ - web: <http://www.sapho.fr/gb/trees-and-shrubs/107-weigela-florida-magical-rainbow-kolmagira.html>

Weigela florida SNIPPET™ DARK PINK 'VUKOZLyra' - 1-2 ft. tall, dwarf, leaves medium green, flowers a rich dark pink, darker than both 'Pink Poppet' and 'Minuet', reblooms well especially if but back. In: http://springmeadownursery.com/plants_details.php?id=97800

Weigela florida SNIPPET™ LIME 'VUKOZ047213' - 1-2 ft.tall, dwarf, leaves a pleasant lime green (not gold), flowers rich pink in bud, becoming medium pink with outer lobes much paler, reblooms well

Cultivars from Book V: Version 5.2

This version is closed to further edits under the Book V name.



To get all the new cultivars along with the old, existing ones, consider a subscription to **CULTIVARS OF WOODY PLANTS**, providing more than 4000 pages of woody plant cultivar data from \$89.00. It also travels with you on your phone, tablet, or laptop for use anywhere in the garden, nursery, greenhouse, classroom, client's property, or lab.

ABEL001 - Abelia TWIST OF ORANGE™ 'sPg-3-069' (Hawksridge Farms) - 4-5 ft. tall x wide. Leaves margined coral-orange at first, later more gold-margined, chimera 15-30% surface, very bold as such. Flowers near white, floriferous. Developed by the Southern Plant Group or sPg.

ABEL002 - Abelia SUNNY CHARM® 'MINDU01' (Plantarium.nl) - 50-110cm tall x wide, dense, subglobose. Flowers dark cream to light yellow, throat also purplish-pink to pale violet on side, main throat cream with fine golden reticulations, very odd colors for this genus, buds distinctly violet to purple on exterior, calyx more copper to reddish. Selected by Pepinieres Minier, Eur. PBR 35714.

ABEL003 - Abelia x grandiflora LUCKY LOTS (Concept Plants)

ABEL004 - Abelia x grandiflora LADY LIBERTY™ 'Keylib' - habit compact, dense. Flower corolla white tinged pink, calyx pale dusky pink. Leaves red in fall, showy. Cold hardy to -20 deg. C. Eur. PBR to breeder Klemens Keijzers, also spelled Klemens Keysers Plantipp.eu, accessed 4.25.2015.

ABEL005 - Abelia PINK PONG® 'ABENOV41' - 1.5-2.0m tall x 1.2-1.5m wide. Flowers rich lavender-pink to violet in bud opening to light pink or lavender-pink with darker markings of golden-orange in throat, calyx more light pinkish-orange to purplish-copper, highly floriferous over a long period. Selected by INRA/SAPHINOV, a 2004 cross of *A. schumannii* 'Bumblebee' x *A. grandifolia* 'Semperflorens', sapho.fr, EU PBR pending, accessed 5.31.2015.

ABEL006 - Abelia x grandiflora GOLD TOUCH® 'BMRGOLD' - 60-100cm tall x 60-80cm wide. Twigs orangish to red, showy, contrasting well. Leaves golden-yellow, orange and copper tints in new tips, similar but stronger tones in fall. Flower near white to pale pink. Selected by Andre Briant in cooperatin with Pepinieres Minier.

ABEL007 - Abelia x grandiflora MYSTIC DAYDREAM 'Opstal40' USPP# 25193

ABEL008 - Abelia MISS LEMON™ 'Hopley's Lemon Zest' - 3 ft. tall x 4 ft. wide. Flower corolla light pink. Leaves irregularly margined golden-yellow at 5-15% surface, this chimera later more ivory-yellow to cream by the second year. In: Southern Living Plant Collection. Web: http://southernlivingplants.com/images/uploads/fact-sheets/abelia_miss_lemon.pdf, accessed 4.6.2016

ABEL009 - Abelia x grandiflora PINK LADY™ 'KEYLAD' - compact, irregularly spreading to mounded. Leaves broadly margined white at 15-40%, new growth bright pink, very showy as a tricolor. In, ph: <http://www.sapho.fr/gb/trees-and-shrubs/246-abelia-x-grandiflora-pink-lady-keylad-.html>, accessed 10.13.2016

ABEL010 - Abelia x grandiflora 'KEYFLY' - Pat: Euro PBR CPVO #20122179 to Klemens Keysers on April 24, 2014.

ABEL011 - Abelia x grandiflora 'KEYCARN' - Pat: Euro PBR CPVO #20150197 to Klemens Keysers on January 26, 2015

ABEL012 - Abelia x grandiflora 'Colour Wheel' - 1m tall x wide. Leaves margined lime green, chimera 35-50% surface. Flower corolla white. Web: <http://www.touchofclassplants.com.au/products/abelia-colour-wheel/>, accessed 3.12.2017

ABEL013 - *Abelia x grandiflora* BELLA DONNA™ 'Wevo1' (incorrectly on some websites. as 'Wevol') - 20.4 cm tall x 47.4 cm wide in 15 cm containers, can reach 1 m tall x wide in time, initially sub-prostrate to low-spreading, low mounded, much lower than most other variegates as young plants, leaves margined light yellow at first, becoming a cream to white margin iwth maturity, very dark green base color, chimera about 5-15% surface, some "sectoring in" lines at the apex, also a midrib that may be marked yellow to white too, variegation retains from spring to winter. flower corolla nearly white, floriferous, very long summer bloom period. Pat, or: US#26126 to Landert de Vos on Nov. 24, 2015, as 'Wevo1', a sport of 'Abelops' 2008 in Reeuwijk, The Netherlands.

ABEL014 - *Abelia x grandiflora* SCENTED BLUSH™ SUNSHINE DAYDREAM 'Abelops' - legacy registration: [Please read Pat: US#20951](#)

ABIE001 - *Abies concolor* 'Buggy Wuggy' (Buchholz Nursery)

ABIE002 - *Abies fraseri* 'Green Scout' (Brotzman's Nursery) - narrowly columnar

ABIE003 - *Abies balsamea* 'Sticky Fingers' - compact, dense, columnar from broom, branchlets lon, finger-like, needled light green, shorter, quite resinous. Or: Mike and Cheryl Davison. Offered by www.coniferkingdom.com, accessed 2.16.2016.

ABIE004 - *Abies lasiocarpa* 'Blue Bear' - compact, slow, 2-4 in. a year growth rate, very rich icy blue, a different shade than the popular 'Glauca Compacta'. In, ph: <http://www.coniferkingdom.com>, accessed 10.12.2016

Editor's Note: A very large number of *Abies*, *Cedrus*, *Chamaecyparis*, *Cupressus*, and other witches brooms are faithfully and laboriously catalogued in the The Conifer Treasury 8.0 @ <http://www.conifertreasury.org> by Zsolt Mesterhazy, being especially rich in named clones of European introduction. This is a 100% free reference. More than 77 conifer originators and collectors contributed to this superb website, often with original images. Jerry Morris, who is famous in the US for his superb dwarf finds, has a Breeders Hall of Fame "Life Monument" that is quite remarkable and useful. Until such time as these numerous sports and brooms make it to the commercial trade or major collections (and we suspect most will not), we are declining to register them here and now. His reference is superb for those wishing to have knowledge of more than 16,000 cultivars not found in major conifer books and perhaps avoid reusing a name or two.

ACER001 *Acer davidii* VIPER® (Minier Nurseries) - an interesting bark, mostly pale greenish-white, faint stripes

ACER002 *Acer rufinerve* GREAT STAR® (Minier Nurseries) - bark bright green, heavily striped white (40% or so). Leaves rich carmine-red to orange shades in fall. In: <http://www.pepinieres-minier.fr/fichePlante.php?codePlante=7983&route=pepiniere-RetDbis-research&lang=gb>

ACER004 - *Acer* 'Sugarflake' (*A. griseum* x *A. saccharum*)

ACER005 - *Acer* (Rochester Group) 'Shaved Chocolate' (Songsparrow Nursery, a Klehm introduction)

ACER006 - *Acer palmatum* x *pseudosieboldianum* ARCTIC JADE (Iseli Nursery, their own hybrid)

ACER007 - *Acer palmatum* DRAGON TEARS™ - Habit weeping. Leaves very bright red, deeply lobed, not classically incised or dissected. Selected by Ray and Cindy Jackson. HeritageSeedlings.com, accessed April 2014.

ACER008 - *Acer* 'Ample Surprise' (*A. amplum* x *A. platanoides*)

ACER009 - *Acer platanoides* 'Beskid' (Institute of Pomology and Floriculture, Poland) - fastigate with twisted, curled leaves, something like 'Newton Sentry' and "Crispum" were crossed. Collectors will adore this. NOTE: this link produces an automatic PDF download which may or may not load onto your screen.

ACER010 - *Acer x freemannii* SHELINA'S BEAUTY™

ACER011 - *Acer campestre* JADE PATINA™, photo courtesy of and copyright owned by www.baileynurseries.com, is a distinct improvement on the old, rampant, and ratty species. This one has a clearly incurving habit, erect-globose to ovoid in time, and a wonderful dark incised blade that reminds some of *Acer griseum*. The fine folks at Bailey's nursery, being in a climate where these super hardy maples are a real necessity, have a long record of improving tough *Acer* species.

ACER012 - *Acer buergerianum* 'Angyo Weeping' may prove to be the best weeping maples outside *Acer palmatum* Dissectum Group. It actually has some grace and is not semi-pendulous like so many so-called weeping, more like slightly cascading, cultivars promoted over the last two centuries. Now that the species has been shown to be surprisingly tough, hardy, and pretty in the North American mainstream landscape, suitable now for even corporate and mall plantings, this type of cultivar might get a shot at fame. Click image please. Image above not part of OROC Data Sharing.

ACER013 - *Acer palmatum* RED WINE® - Habit erect, strong. Leaves with new tips very bright red, becoming green suffused and heavily tinged purple to dark red, some even bronzy-green or bronzed red, orange to red shades in fall. It is not "ever-red" in the Bloodgood sense.

ACER014 - *Acer* NORTHERN GLOW® 'Hasselkus' (*A. pseudosieboldianum* x *A. palmatum*) - 20 ft. tall x 24 ft. wide, upright-spreading. Cold hardy USDA 4, giving *palmatum*-like looks a zone better. Leaves green, deeply lobed, coarsely dentate to long-dentate margins, fall color bright orange and coral-red to dark red, very showy. Bred by Dr. Edward Hasselkus, University of Wisconsin, Madison.

ACER015 - *Acer* URBAN SUNSET™ 'JFS-KW187' (*A. truncatum* x *A. platanoides*) - 35 ft. tall x 20 ft. wide, compact, needing little pruning, narrowly pyramidal to upright-ovoid. Leaves dark glossy green, favoring *A. truncatum* for shape, silhouetted as an almost ratr-like or Liquidambar style look with broadly spaced lobes and deep lobing, fall color a rich, dark red, other times a rich orange to red Rmix. Cold hardy to USDA 4b. Jfschmidt.com, accessed 5.8.2015, their new introduction for 2015.

ACER016 - *Acer buergerianum* RAISING BLAZE 'EOAB1' - leaves very glossy, dark green, improved orange to red fall colors. Low seed production rate, therefore less chance of invasive behavior as some species seedlings and cultivars exhibit with high samara counts. Proven more heat tolerant in the southern US. Selected by Rusty Allen, Eastside Ornamentals, Athens, Georgia, US c. 2012. Literature: Dirr, M.A. 2012. In praise of noble trees. web artricle, plantintroductions.com, accessed 5.8.2015

ACER017 - *Acer miyabei* 'Butterball' - fall color reliably yellow, showy, if given enough sun. See http://www.montgomeryparks.org/activities/things_to_do/fall/documents/shf_presentation.pdf

ACER018 - *Acer circinatum* THREE CHEERS™ - 10-15 ft. tall x 6-8 ft. wide, twice as tall as wide in some cases, flame-shaped or ovoid, not a weak wild form but having

uniform growth, an erect shrub to small tree. Leaves of typical dimensions yet darker green than most. heritageseedlings.com, accessed 5.6.2015, their own selection.

ACER019 - *Acer palmatum* 'Kinky Krinkle' - 8 ft. tall x 4 ft. wide (10 years), upright. Leaves bright green, lime at first, distinctly and thinly marked dark red to reddish-purple (1-5% surface), margin irregularly serrate to serrulate, crinkled look, 3-5-lobed to 75% deep but marginal crinkling is finer and more shallow, golden fall colors. Selected by Buchholz Nursery, accessed 5.19.2015.

ACER020 - *Acer palmatum* 'Peve Dave' - leaves very deeply lobed to 90% or more, lobes very narrow elliptic-linear, intermediate between species and Linearilobum Group, favoring the later, dusky pinkish-red, midribs and secondary veins more clearly pink to orangish-pink, later more reddish-purple with maturity, orange to red shades in fall, can very fiery orange in the right conditions.

ACER021 - *Acer platanoides* 'Nowush' - semi-dwarf, densely compact and subglobose (from witches broom) at first, later more erect, narrowly ovoid to narrowly pyramidal, can be trained more columnar, numerous erect columns of foliage, not an odd bean-pole as some mutants, being well-branched with many laterals, appears to be a viable small tree for many applications in the landscape. Leaves smaller, reduced in all parts, slightly and elegantly curled, very asymmetrical, often more deeply lobed than species (to 50-75% at times), lovely for the semi-incised look with many strong lobe and sub-lobe acuminate to acuminate-cuspidate apices, not deformed as some species mutants, terminal lobe usually large and dominating, fall color often a rich, showy gold.

ACER022 - *Acer rubrum* 'Jinse Qiutian' - leaves 5-lobed, distinctly light golden-brown in fall, photo appears to be more dark golden, 30 days of color. Published in Acta Horticulturae Sinica 42(2): 403-404 (2015)

ACER023 - *Acer rubrum* 'Yanhong' - leaves 5-lobed, very bright red in late October, best in early November, with 30-35 days of autumnal color. Acta Hort. Sinica 41(6): 1281-1282 (2014)

ACER024 - *Acer rubrum* 'Jinmai hong' - leaves 5-lobed, light red with golden-brown veins, beginning in October, best in early November, 30-35 days of autumnal color. Acta Hort. Sinica 40(12): 2549-2550 (2013)

ACER025 - *Acer campestre* STREETSIDE™ 'JFS Schictel2' - 35 ft. tall x 18 ft. wide, "upright sweeping" ovoid, bark exfoliating and showy reddish-brown curls, superior to random seedlings. Leaves dark green in summer, yellow in fall. Japanese beetle resistant. Or, in: www.jfschmidt.com, accessed 6.15.2016,

ACER026 - *Acer griseum* FIREBURST™ 'JFS KW8AGRI' - 25 ft. tall x 18 ft. wide, upright ovoid, "predictable performance and speedy growth", more uniform, erect, and with superior branch structure than random seedlings. Leaves dark green, bright red in fall. Or, in: www.jfschmidt.com, accessed 6.15.2016

ACER027 - *Acer palmatum* 'Verkade's Jacus Potus' - Shrubby, heavily branched. Leaves 3-divided, margins crinkled, red new growth. Or: David Verkade. Offered by www.heritageseedlings.com, online Wholesale Catalog 2015-2016 (PDF), accessed 2.16.2016

ACER028 - *Acer negundo* 'Tadevsz Szmanowski' - leaves very deeply incised, typical bright, light green, some lobes cut to the midrib and others to 0.5-1.5cm deep from the midrib. photo: <http://www.drzewa.com.pl/7505/klon-jesionolistny-tadeusz-szymanowski.jpg>

ACER029 - *Acer capillipes* 'Honeydew' - new growth bright reddish-orange to coral-melon tones, youngest tips the most red. Photo: <http://www.esveld.nl/html/diadu/a/acchon.htm>, accessed 5.17.2016

ACER030 - *Acer saccharum* 'Kristins Dissected' - 40 ft. tall x 20 ft. wide. Both narrowly columnar and with incised, dissected blades, yellow or orange shades in fall. Ls: Dawes Arb. 2012.

ACER031 - *Acer palmatum* 'Snow on the Mountain' ('Yuki Yama') - Dwarf, tufted at times, subglobose to densely mounded, very small, leaves narrowly 5-lobed, new growth rich pink with a paler white to green mottled midrib, becoming dark green finely mottled green with occasionally large patches (sometimes entire lobes) in white with sparse green markings, chimera often 90% in new growth and becoming 40-50% later, and very limited in old leaves. The originators compared it to "a variegated extreme dwarf form of 'Mikawa Yatsubusa', having smaller internodes and denser habit over time. Or, in: s3.amazonaws.com/essence-catalog/Essence_Catalog_Spring2016.pdf, accessed 10.7.2016, their own introduction, Two named as used but since 'Snow on the Mountain' appears in single quotations marks we consider that the preferred cultivar name. Being of difficult propagation the first plants are offered at \$200.00 US.

ACER032 - *Acer macrophyllum* 'Santiam Snow' - leaves heavily sectored and mottled cream to light yellow to greenish-yellow, often faintly spotted too, chimera easily 50-80% surface on some blades. In: Heritage Seedlings. Offered by www.coniferkingdom.com, accessed 2.16.2016

ACER033 - *Acer palmatum* 'Hangover' - habit arching, semi-pendulous. Leaves very irregularly, asymmetrically of Dissectum Group, avocado green, undulate. Offered by www.coniferkingdom.com, accessed 2.16.2016, their exclusive introduction.

ACER034 - *Acer grandidentatum* MESA GLOW™ 'JFS-NuMex 3' - 28 ft. tall x 18 ft. wide, erect, ovoid. Leaves glossy, dark green in summer, orangish-red to red in fall. Drought tolerant, adaptable to areas where this species is perhaps superior to eastern species. Ch: USDA 4. Or: Rolston St. Hilaire, New Mexico State University. In, ph: <http://www.jfschmidt.com/introductions/mesaglow/index.html>

ACER035 - *Acer* RUBY SUNSET™ 'JFS-KW249' (*A. truncatum* x *A. platanoides*) - 25 ft. tall x 20 ft. wide, broadly ovoid to globose, USDA 4, leaves dark, glossy green, fall color rich orangish-red to dark red. Combines the best of each parent species. In, or: <http://www.jfschmidt.com/>, accessed 12.26.2016, 2016 intro.

ACER036 - *Acer buergerianum* VALYNOR® 'ABFSS' - 35-40 ft. tall x 20 ft. wide, habit directly more erect, columnar-ovoid, useful in a species which can easily span 50-80 ft. wide with time. Pat: US #19181 to Dwayne Moon

ACER037 - *Acer palmatum* (Dissectum Group) 'Scarlet Princess' ('Ash's Scarlet Princess' www.waysidegardens.com, accessed 10.3.2016) - as group but dwarfier, very small, uniform, and compact, rich red to dark red shades. Or: Thomas and Nancy Ash. Ash's Japanese Maple Nursery, Hampstead, North Carolina, as witches broom from 'Crimson King'. In, ph: <http://www.japanesemaplefarm.com>, accessed 10.4.2016

ACER038 - *Acer palmatum* 'LileeAnne's Jewel' ('Little Ann's Jewel') - leaves deeply and coarsely toothed, asymmetrical, slightly twisted blades, rich cherry red with pink and white stripes and markings throughout to about 15-40% of the surface, more green base color by summer, the chimera turns hot pink in fall. Or: Johnathon Savelich, named for his daughter LileeAnne, thus the popular 'Little Ann's Jewel' being incorrect. In, ph: <https://www.mrmaple.com/Buy-Acer-palmatum-Lileeannes-Jewel-Variiegated-Japanese-Maple.html>, accessed 10.3.2016

ACER039 - *Acer platanoides* 'Emerald Orb' (Waxman's Dwarf") - 10 ft. tall x wide (20-30 years, estimate), habit very dense, globose, perfectly symmetrical, "rounded framework of tight spaced branched", only 6 inches growth a year at first. Or: Dr. Sidney Waxman, University of Connecticut, and one of his many fine witchesbrooms with high ornamental potential. In, photo: www.brokenarrownursery.com, accessed 10.3.2016, "a fun new selection...we finally decided to name and introduced after numerous favorable comments and more than a decade's worth of trial and evaluation". Ns: the name 'Waxman's Dwarf', very likely the same clone or a similar one has been used by www.davidsansjapanesemaples.com and www.nurseryguide.com, accessed 10.3.2016.

ACER040 - *Acer palmatum* 'Debbies Golden Splendor' - leaves golden-yellow all spring and summer, not fading as older gold-leaved clones. In: www.whistlinggardens.ca, accessed 10.3.2016, as was as lakenursery.com and www.handynursery.com.

ACER041 - *Acer palmatum* 'Clarabell' - leaves with yellow to chartreuse new growth, margined orange or tinged reddish-orange near the margins, primary veins yellow to chartreuse, contrasting, well, , similar to the popular 'Kadsura' but a smaller blade, mostly green and uniformly so by summer, fall tints in orange to red shades. In, photo: <https://www.mrmapple.com/Buy-Acer-palmatum-Clarabell-Japanese-Maple.html>, accessed 10.3.2016

ACER042 - *Acer buergerianum* 'Golden Pharoah' - leaves bright yellow at first, slowing becoming reticulated with green major veins and some peach tones, maturing to rich green.

In, photo: <https://www.mrmapple.com/Buy-Acer-buergerianum-Golden-Pharoah-Trident-Maple-Tree.html>, accessed 10.3.2016

ACER043 - *Acer buergerianum* 'Michael Steinhardt' - leaves bright yellow, become rich yellow tringed orange by summer, not green-veined or reticulated as 'Golden Pharoah'. Or, in: Michael Steinhardt from a tree in his garden, introduced by Don Shadow. In, photo": <https://www.mrmapple.com/Buy-Acer-buergerianum-Michael-Steinhardt-Golden-Trident-Maple.html>, accessed 10.3.2016

Web: <http://nypost.com/2016/06/12/hedgie-wants-nurseryman-to-sell-animals-to-pay-off-debt/>, a curious reference to this cultivar from a major media source.

ACER044 - *Acer palmatum* 'Celebration' - leaves bright metallic purplish- red with dark red veins, brighter than parent 'Purple Ghost, distinct jagged margins of teeth and sharp lobes of variable sizes.. Or: Buchholz Nursery from seedling of 'Purple Ghost' sown in 2007. In, ph: www.buchholznursery.com, accessed 1/1.2016

ACER045 - *Acer palmatum* 'Strawberry Spring' - leaves very pale green, heavily frosted in white and silver, new growth suffused rich red near the margins in particular, leaf shape with irregular, variable jagged teeth and lones. Or: Buchholz Nursery as seedling of 'Amber Ghost'. photo: florawander.blogspot.com, accessed 10.4.2016

ACER046 - *Acer pseudosieboldianum* NORTHERN SPOTLIGHT 'KorDak' - 20 ft. tall x 15 ft. wide. Leaves green, silky pubescent at first, emerging late to avoid frost, tolerant of wind and heat, bright red in fall, retained into winter in russet brown shades, these retained leaves functioning to prevent sunscald of the bark. Ch: USDA 3 or about -40 deg. F. Or: Greg Morgenson, Bismarck, North Dakota.

ACER047 - *Acer japonicum* 'Kings Copse' - 2m tall x wider, mounded to semi-pendulous, cascading. Leaves deeply incised, bright rich green, petiole reddish and contrasting, orangish-red shades in fall. In, ph: <http://www.esveld.nl/html/diaen/a/acjkco.php>, accessed 10.7.2016. hsp: the RHS maintain the Nomenclatural Standard specimen viewable from this location: <http://plants.jstor.org/stable/history/10.5555/al.ap.specimen.wsy0030481>

ACER048 - *Acer palmatum* subsp. *matsumurae* 'Alloys' - 2.5m tall (10 years), classic domed Dissectum Group look. Leaves highly incised, bronze-tinged in new growth, bright green becoming dark by summer, shape as the subspecies but cut similar to f. *dissectum* aka Dissectum Group, fall color in orange shades, petioles often a very dark bronze-red and contrasting well. In, ph: http://www.maillot-erable.com/en/boutique/35_acer-matsumurae/128_alloys, accessed 10.7.2016

ACER049 - *Acer palmatum* f. *dissectum* (Dissectum Group) 'Dark Straw' - classic, semi-dwarf, mounded form of the group, smaller than some of new vigorous material. Leaves very dark and rich red, a very duration, stable, almost blackish-red at times, not a pale red like some other new material, reminding some of a dark red haystack. In, ph: http://www.davidsansjapanesemaples.com/shop/product/dark_straw, accessed 10.7.2016

ACER050 - *Acer palmatum* subsp. *amoenum* 'Jade Gate' - habit smaller than subspecies as typical, a slower seedling. Leaves typical of this subspecies, being one with mostly 7 very wide, even bulbous, star-like lobes, rich green spring and summer color, orange to red fall shades. Or: Nancy Fiers found as a slower seedling, intended for bonsai use but it became a smaller, landscape tree of real merit.

Or, In, ph: <https://www.essenceofthetree.com/products/show/153-acer-palmatum-jade-gate>, accessed 10.7.2016, their own introduction

ACER051 - *Acer palmatum* f. *dissectum* (Dissectum Group) FIRE CRACKER® (popularly 'Fire Cracker' or JEWELS® 'Firecracker') - Very vigorous for this group and thus superior to older selection but still maintaining compactness. leaves much incised as form and group, rich crimson-purple becoming brownish-orange in fall, petioles usually a much bright, bolder red shade (not purple). Said by some experts to be among the most stable dark reddish-purple cultivar of this type. Or, pat: Holland, Euro PBR. In, ph: http://www.maillot-erable.com/en/boutique/37_acer-palmatum/1189_fire-cracker, accessed 10.7.2016

ACER052 - *Acer buergerianum* 'Himcode' - slower than species typical. Leaves copper-colored at first, last glossy, dark green, fall colors of dark red to scarlet. In, ph: <http://www.baumschule-wilken.com/pflanzen/laubgehölze/acer/buergerianum/himcode/acer-buergerianum-himcode.html>, accessed 10.11.2016

ACER053 - *Acer griseum* 'Golden Lucky' - leaves heavily mottled golden-yellow, some leaflets all this color, chimera 30-80% of the surface. Or: W.J. Van Ooi, Boskoop, The Netherlands.

In, ph: <http://www.plantmar.pl/oferta,10,1,1,44.html>, accessed 10.11.2016. Best image at: http://www.plantmar.pl/galeria/pro/min/20132702075919acer_griseum_Golden_Lucky_005.jpg

ACER054 - *Acer palmatum* 'Going Green' - strong, vigorous, robust young plants, twigs green in winter, showy in contrast to other colors such as the gold, reds, oranges in this species. Leaves a basic green but bright, showy, yellowish-orange in fall, serrate, about typical of subsp. *palmatum* shape and margins. Something of a good species alternative with better traits than random green seedlings.

ACER055 - *Acer palmatum* f. *dissectum* (Dissectum Group) 'Peve Droopy' - green as the Group, very compact, slow. Or: Peve Nursery. In: <http://www.hulsdonk.com/index.php?item=acer-palmatum-peve-droopy&action=article&aid=19369&lang=NL>, accessed 10.11.2016

ACER056 - *Acer platanoides* SENSATION® 'Ulmers Sensation' - about 20% slower than 'Drummondii', hence more manageable in small spaces and gardens. Leaves broadly margined yellow quickly becoming cream-edged, chimera at 30-50% surface, much as 'Drummondii' but reverting less and having a brighter aspect.

ACER057 - *Acer ginnala* ROYAL CROWN® 'JefUM' - 20 ft. tall x 15 ft. wide, globose to subglobose, trained and easily maintained as "three-stem clump". Leaves rich burgundy-red in fall, very showy. Lu: alkaline soil resistant. Ch: USDA 2. Or, in: University of Manitoba, Canada, introduced by <http://www.jeffriesnurseries.com/p7-17.pdf>, accessed 1.7.2017.

ACER057 - *Acer saccharum* LORD SELKIRK 'Jefselk' - 40 ft. tall x 30 ft. wide, upright, pyramidal. Ch: USDA 3. Leaves orange to yellow shades in fall. Or, in: "A northern seed source...good adaption to the conditions in the southern prairies", offered by <http://www.jeffriesnurseries.com/p7-17.pdf>, accessed 1.7.2017, named in honor of the 200th Anniversary of the Selkirk Settlement

ACER058 - *Acer* HIGHLAND PARK® 'Hipzam' (*A. grandidentatum* x *A. saccharum*) - 35 ft. tall x 25 ft. wide, strongly and neatly pyramidal. Leaves dark blackish-green, thicker, more durable, orange to red shades in fall. Lu: valued as both an ornamental and a syrup production, it's sap up to 30% than typical, random seedlings. This tree is thus a true ornamental-edible. Tolerant of dry and urban pollution conditions. Ch: USDA 4. Or, in: Lake County Nursery.

ACER059 - *Acer grandidentatum* 'Manzano' - 20-30 ft. tall, more arborescent than some wild populations. subglobse-spreading to loosely and low pyramidal. It has been recommended as an under-wire street tree due to it's low mature height compared to other maples. Leaves ofte in rich red to yellow and orange shades in fall. Or: derived from the Manzano Mountain population of New Mexico. Ch: USDA 4. Web: <http://www.thetreefarm.com/maple-bigtooth-manzano>, accessed 1.15.2017

ACER060 - *Acer cincinatum* 'Lilypad' - leaces distinct bullate or convex along the separate, very obtuse, shallow lobes. It does have a rounded lily pad aspect.

PENDING - *Acer saccharum* 'Collins Caddo' - 45 ft. tall x 40 ft. wide. Leaves rich red in fall. Ns, id: we are trying to determine if this is distinct from the original 'Caddo' maple or not.

ACER061 - *Acer nipponicum* 'Adisonack' - web: [https://www.forestry.gov.uk/pdf/Unique-tree-list-May-2012.pdf/\\$file/Unique-tree-list-May-2012.pdf](https://www.forestry.gov.uk/pdf/Unique-tree-list-May-2012.pdf/$file/Unique-tree-list-May-2012.pdf), accessed 5.1.2017

ACER062 - *Acer nipponicum* 'Dawy' - web: [https://www.forestry.gov.uk/pdf/Unique-tree-list-May-2012.pdf/\\$file/Unique-tree-list-May-2012.pdf](https://www.forestry.gov.uk/pdf/Unique-tree-list-May-2012.pdf/$file/Unique-tree-list-May-2012.pdf), accessed 5.1.2017

ACER063 - *Acer palmatum* BUTTERSCOTCH™ 'JWW8' - leaves mostly 5-lobed, strongly dentate in some lobes, bright pink at first, up to six week, slowly maturing to soft brown and later a dark green, becoming bright red in fall. web: <http://www.newplants.nl/en/planten/a/acer-palmatum-butterscotch-pbr-jww8/>, accessed 4.28.2017

ACER064 - *Acer palmatum* BROWN SUGAR™ 'JWW7' - habit strong, "ramifies well". Leaves chocolate brown at first, midrib abd base tinged olive, later a dark green, later in summer new growth is more red. web: <http://www.newplants.nl/en/planten/a/acer-palmatum-brown-sugar-pbr-jww7/>, accessed 4.28.2017

ACER065 - *Acer* [Rochester Group](*A. griseum* x *A. maximowiczianum*) BRONZE TABLET™ 'AROY' - 7-10 ft. tall x 4-7 ft. wide (10 years), bark rich bronze, exfoliating, even young limbs showing good exfoliation. Leaves "clean summer foliage...red hues in fall". Ch: proven hard on Illinois and Wisconsin border. Or: Roy Klhem as 2nd generation selection. Web: http://www.songsparrow.com/catalog/plantdetails.cfm?ID=5029&type=WOODY,&pagetype=plantdetails&plant_name=Acer%20griseum%20x%20nikoense%20Bronze%20Tablet%3Csup%3ETM%3C/sup%3E, accessed 5.9.2017

ACER066 - *Acer triflorum* ARTIST ETCHING™ 'CROY' - 7-10 ft. tall x 5-8 ft. wide (10 years), bark "very light buckskin tan", much paler than typical, almost like *Betula nigra*, exfoliation extending well into smaller branchlets. Prop: own roots propagation by Klehm. Or, web: <http://www.songsparrow.com/catalog/plantdetails.cfm?ID=5028&type=WOODY,&pagetype=plantdetails>, accessed 5.9.2017

ACER067 - *Acer pictum* subsp. mono CANYON SUNSET™ 'KLMSS' - 8 ft. tall x 5 ft. wide (10 years), leaves in fall "changing blend of sunset canyon shades: burnt oranges and toasty golds". Propagated on own roots by Songsparrow/Klehm. Or: Klehm, intro 2016, sold out for 2017, <http://www.songsparrow.com/catalog/plantdetails.cfm?ID=3953&type=WOODY,&pagetype=plantdetails>, accessed 5.9.2017

ACER068 - *Acer triflorum* ORANGE AGLO™ 'Jack-O-Lantern' - Growth up to 12 in. per year for first 15 years. Leaves 5.2 in. long x 3.75 in. wide, rich pumpkin oraneg in fall, sometimes with red shades mixed in. Or: North Dakota State University, from nursery seedlings in 1995, original seed source unknown, this one thebest of mosts durable of five trees evaluated over 16 years, intro. 2011.

AESC001 - *Aesculus pavia* 'Fishtail' (Mark Weathington, Raulston Arboretum)

AESC002 - *Aesculus turbinata* 'Marble Chip' (Broken Arrow Nursery) - variegated

AESC003 - *Aesculus hippocastanum* 'Lunar Patches' (Variegated Foliage)

AESC004 - *Aesculus glabra* EARLY GLOW™ 'J.N. Select' - reliable, earlier bright red fall color, glossy dark green summer foliage, typical yellow flowers. Very limited fruit production.

AESC005 - *Aesculus glabra* LAVA BURST® 'LavaDak' - 25-28 ft. tall x 14-18 ft. wide, upright ovoid, compact, more narrow clone, internodes shorter, bright summer leaf color, higher leaf scorch resistance, good orange to red fall colors, flowers greenish to cream to light yellow, apparently typical. pancles 4-5 in. long. Ch: USDA 3b. Or: University of North Dakota. Web, or: https://www.ag.ndsu.edu/plantsciences/research/introductions/lavaburst-buckeye/files/lavaburst_ohio_buckeye-r.pdf, accessed 5.1.2017

AKEB001 - *Akebia quintana* 'Kokin Nishiki' - Flowers medium pink, stamens violet-purple, leaves heavily mottled and sectored light yellow to cream, chimera mostly 40-85% surface. So, web: <http://ryochiku-plants.jp/pb/647/>, accessed 4.28.2017

ALBI001 *Albizia j.* MERLOT MAJIK™ (Heritage Seedlings, new cultivar)

ALBI002 *Albizia j.* CHOCOLATE FOUNTAIN™ 'NCAJ1' (Dr. Tom Ranney, NC State University)

'Ishii Weeping'



ALBI003 - *Albizia julibrissin* 'Ishii Weeping' ('Ishii Pendula' invalid post-1959 Latin name). The name was changed from 'Ishii Pendula' as it appeared in the US trade and published as such in Hatch's Cultivars of Woody Plants in 2008.

ALBI004 - *Albizia julibrissin* 'Clemensis' - more cold hardy, tolerant in Vienna, Austria where typical species dies, possibly to -20 C.. Or: Mr. Bruckmoser

ALBI005 - *Albizia julibrissin* 'Evys Purple' - leaves green becoming rich reddish-purple similar to 'Summer Chocolate' but perhaps slightly red in summer. Flowers rich glowing pink, close to magenta up and down the pistils, not pale pink to near white as in 'Summer Chocolate' which is only a rich pink in the upper 20-30% of the pistils.

AMEL001 - *Amelanchier arborea* PINK DAMSEL™ 'Tift County' - 16 ft. tall x 20 ft. wide, grown as single or multi-trunk, flower buds pink opening to near white, leaves light to medium green, "finer textured" than typical of species, red to orange fall colors. Or: Tift County, Georgia US where it handles very hot conditions.

ARBU001- *Arbutus* 'MBAV13' - variegated sport of 'Marina'

ARON001 – *Aronia arbutifolia* 'Hannah Coulter' – habit more compact. Fruit very abundant compared to species typical. Leaves bright orangish-red in fall. Proven more heat and humidity tolerant. Found by Norman Bertels in Jackson County, North Carolina, named for his granddaughter. Camforest.com, accessed 4.23.2015

ARON002 - *Aronia melanocarpa* LOW SCAPE™ MOUND 'UCONNAM165' - 1-2 ft. tall x 2-3 ft. wide, dwarf, very low for this species, suitable for mass planting, edging, groundcover, and soil stabilization. Or: Dr. Mark Brand, University of Connecticut. In: www.springmeadownursery.com, accessed 2.28.2016

ARON003 - *Aronia melanocarpa* LOW SCAPE™ HEDGER 'UCONNAM166' - 3-5 ft. tall x wide, compact, erect to columnar, lower maintenance than 'Viking', leaves dark green, becoming yellow, orange, and red in fall. Or: Dr. Mark Brand, University of Connecticut. In: www.springmeadownursery.com, accessed 2.28.2016

Hatch's Cultivars of Woody Plants

2016-2017 Edition



by Laurence G. Hatch

Aucuba - our standard for 173 existing cultivars in Hatch's Cultivars of Woody Plants. Your purchase of this volume at [Google Play Books](https://play.google.com/store/books/details/Hatch's_Cultivars_of_Woody_Plants?id=K3) supports the OROC project.

[AUCU001 - Aucuba japonica 'Subaru' \(Hawksridge Farms\)](#)

AUCU002 – Aucuba japonica 'Overlook' – leaves larger, very glossy, margined cream. Cistus.com, accessed 4.22.2015, their own selection as sport near Overlook, Oregon

AUCU003 – Aucuba japonica 'Merced'- 4 ft. tall x 3 ft. wide. Leaves mostly gold, slight green speckling. Cistus.com, accessed 4.22.2015, their own selection

AUCU004 – Aucuba japonica 'Lisa White' – Plant compact. Leaves 4-5 in. long, narrow, speckled yellow. Fruit "very pale", female clone. Cistus.com, accessed 4.22.2015, named for Lisa White via Ozzie Johnson

AUCU005 – *Aucuba japonica* 'Clear Picture' – 4 ft. tall x 3 ft. wide, dense, subglobose to erect. Leaves centrally marked gold to 80-95% surface, margins dark green with some gold specking. Cistus.com, accessed 4.22.2015.

AUCU006 – *Aucuba japonica* 'Alabai' – leaves dark green, spotted creamy-yellow in a swirled pattern. Cistus.com, accessed 4.22.2015, their own selection

AUCU007 - *Aucuba japonica* var. *borealis* 'Bored Female' - 4 ft. tall x wide. Leaves very glossy, blackish-green. USDA 6b-7, more hardy as the variety. Female clone. Plantdelights.com, accessed 4.22.2015, their own selection

AUCU008 - *Aucuba japonica* 'Golden Girl' - 1m tall x wide, very compact, shorter internodes. leaves heavily mottled and spotted yellow, chimera 25-60% surface, variable, some young plants in spring are said to be mostly gold, 80-90% surface, still very sharp in the blade, apex very long acute to acuminate. Fruit red, a female clone. Peter Moore cross of 'Nana Rotundifolia' x 'Crotonifolia' in 1993, offered exclusively in the UK by New Place Nurseries, npnurseries.co.uk, Bredbypetermoore.co.uk, accessed 5.29.2015

AUCU009 - *Aucuba japonica* 'Petite Jade' - click link for USDA/USNA introduction PDF, offered by Monrovia.com

AUCU010 - *Aucuba japonica* 'Ova Easy' - 6 ft. tall. Leaves all gold, 4-6 in. long, "spring green and velveteen gold when exposed to more light". Or, in: www.cistus.com, Spring 2016 online catalog, accessed 3.29.2016, sport of 'Overlook' in all gold.

BACC001 - *Baccharis halimifolia* 'Baccador' (Minier Nurseries) - a unique gold-leaved clone

BERB001 - *Berberis thunbergii* SUNJOY® TANGELO 'O'byrne' - 36-48 in. tall, upright, "outwardly arching and mounding" (patent app), vigorous, freely branching. Leaves reddish-orange, thinly margined or ringed pale yellow to chartreuse, overall appearing a "zingy orange" from a distance in the landscape, yet stronger than other variegated cultivars. Rust resistant. Or, Pat: US# 26546 on March 29, 2016 to Ernest O'Bryne, Eugene, Oregon, USA as 'Aurea' x 'Rose Glow' in 2003.

BERB002 - *Berberis thunbergii* 'Lutin Rouge' (Plantarium.nl)

BERB003 - *Berberis thunbergii* SUNJOY® CITRUS 'Koren' - 2-3 ft. tall x 2-4 ft. wide, compact, subglobose, improved form over older 'Aurea'. Leaves bright yellow, subscorch resistant. US patent #24818. Springmeadownursery.com, accessed 4.30.2015

BERB004 - *Berberis thunbergii* SUNJOY® MINI SAFFRON 'Kasia' - 1.5-2.0 ft. tall x 2-4 ft. wide, dwarf, dense, mounded, smaller than CITRUS. Leaves bright yellow, new growth tinged orange, subscorch resistant, fall color adds orange to red shades. US patent #24817. Springmeadownursery.com, accessed 4.30.2015

BERB005 - *Berberis* TINY N' SPINY® 'Bokratin' - 40cm tall, low, compact, evergreen, designed as tough, weed-covering, woody ground cover. Leaves bright green, slightly tinged bronze in new growth, generally green all year. Flowers light yellow. Rust resistant.
In: <http://www.boot.nl/en/text/89/Trees>, accessed 8.6.2016

BERB006 - *Berberis thunbergii* LAMBRUSCO™ 'BailElla' - 2-3 ft. tall x 3-5 ft. wide, compact, spreading-mounded, dense. Leaves light red becoming dark burgundy tones.
Or, in: www.baileynurseries.com, accessed 6.24.2016, <http://www.firsteditionsplants.com/lambrusco-barberry>

BERB007 - *Berberis thunbergii* MOSCATO™ 'BailAnna' - 2-3 ft. tall x 3-5 ft. wide, compact, spreading-mounded, dense. Leaves bright green, thin peach orange margin, mostly medium green by summer
Or, in: www.baileynurseries.com, accessed 6.24.2016, <http://www.firsteditionsplants.com/moscato-barberry>

BERB008 - *Berberis thunbergii* 'Fireball' - 1-2 ft. tall x 1-2 ft. wide (5 years), later larger, dense, compact, subglobose to mounded. Leaves bright "fiery red", more of a pinkish-red to rose-red than a dark maroon-red of older clones. Rust resistant to date. Or: Czech Republic, US Patent #21000 Web: <http://planthaven.com/plant/berberis-fireball/>, accessed 4.6.2016

BERB009 - *Berberis* 'Thunderbolt' - 2.0-2.5m tall x wide. Leaves very dark purplish-burgundy, hold color into summer, over evergreen in mild climates. Or: INRA

BERB010 - *Berberis x media* DUAL JEWEL® - web: <https://www.hogendoornholland.com/nl/plant/berberis-media-dual-jewel>, accessed 3.12.2017

BERB011 - *Berberis triacanthophora* 'Cally Rose' - 1.8m tall, evergreen. Flower numerous pink outside in clusters, inner petals cream. Leaves rich green, narrow. web: <http://www.panglobalplants.com>, accessed 3.12.2017. Note: it is not from *B. panlanensis* as previously thought.

BERB012 - *Berberis thunbergii* MIDNIGHT RUBY™ 'Midruzam' - dense, dwarf, slow, requires no regular trimming, leaves larger than most dwarf clones, orangish-red at first, quickly maturing to rich dark burgundy-red, dark red in fall, companion for contrast to gold-leaved '24K Gold', flowers and fruit absent. Pat, or: Lake County Nursery, US# 25609. Web: <http://www.starrosesandplants.com/plants/shrubs/berberis-midnight-ruby>, accessed 5.1.2017, <http://www.lakecountynursery.com/PDF/MidnightRuby.pdf>

BETU001 - *Betula albosinensis* BLASON (Minier Nurseries) - a curious orangish-red bark over most of the trunk, frosted too.

BETU002 - *Betula costata* CINNAMON CURLS™ (North Dakota State University). Li: <http://hortsci.ashspublications.org/content/51/7/950.full>, paid content

BETU003 - *Betula utilis* 'Jim Russell' (Arboretum Wespelaar, their own selection)

BETU004 - *Betula* PARKLAND PILLAR™ 'Jefpark' - 40 ft tall x 6-7 ft. wide, vigorous, columnar, more narrow, erect, and denser than DAKOTA PINNACLE®. Leaves dark green, fall color not notably showy. Found at Parkland Nursery, Alberta, introduced by Jeffries Nurseries c. 2014.

BETU005 - *Betula utilis* var. *jacquemontii* 'Tickle Creek' - 6 ft. x 4 ft. wide, slower, dwarf. Bark copper colored. Leaves "coarse, lacy, deeply cut". Or, in: Iseli Nursery, www.iselinursery.com, accessed 5.22.2016, their own new introduction 2015 as witches broom on a large mature tree at their Tickle Creek Farm.

BETU006 - *Betula x plettkei* 'Golden Treasure' - 2-4 ft. tall x wide, much as species, dwarf, yellow bright yellow becoming greenish-yellow, designed to be a "lollipop" patio tree. Bark silvery-white when grafted on standard of Himalayan birch. Useful as bright, dwarf shrub or patio container. Or: Michal Andrusiv, Czech Republic. In: www.springmeadownursery.com, accessed 2.28.2016

BETU007 - *Betula pendula* MAGICAL® GLOBE - 4-5 ft. tall x 3-4 ft. wide, dwarf, distinctly globose, compact, typically grafted on a standard of Himalyan birch, giving the trunk are pale, whitish to silvery look.. Or: Kolster. Web: <http://plantsnouveau.com/plant/betula-magical-globe/>, accessed 10.7.2016

BETU008 - *Betula pendula* 'Spider Alley' - branches somewhat twisted, curled, not pendulous but generally horizontal to irregular, overall a lightly contorted but not extremely twisted clone, quite a moderate and elegant plant, different, interesting, but not a freak. Leaves light green, yellow in fall, much as species. Pat: EURO PBR 21231 to Boomkwekerij John de Lepper on May 5, 2014.
In, ph: <http://www.newplants.nl/en/planten/b/betula-pendula-spider-alley/>, accessed 10.11.2016.

BETU009 - *Betula pendula* FASTIGIATA JOES® 'Jolep 1' - fastigiate to narrowly columnar, showy white bark after 4-5 years. Ns: while the Latin word "fastigiata" is Latin and banned in cultivar names, there are no prohibitions in Latin for trademarked names. Therefore this half Latin name is in good standing. In, ph: <http://www.frankpmatthews.com/catalogue/betula/12285>, accessed 10.15.2016. Pat: Euro PBR 20141206

BETU010 - *Betula pendula* 'Bøgghs' - 12-16m tall x 4-6 ft. wide, habit neat, regular (clonal), branch angle about 30 degrees, moderately pendulous, narrower than some forms but not columnar, described as "slim" so it fits spaces the wider seedlings might not be suited for, neat over time, bark reliably white, later more greyish, showy. Leaves medium green, yellow to tan in fall. Lu: this is a proven "species replacement" or reliable clone for the European market much as HERITAGE is a chosen *Betula nigra*. Or: Bøgghs Nursery, 1880 by one report, not widely grown as a named clone until recent years, and not known in North American to my knowledge (2017).

BETU011 - *Betula pendula* 'Arvi' or possibly an interspecific - 20-25m tall, broadly pyramidal, erect, not pendulous as seedlings or 'Bogghs', bark white, showy, good horizontal lenticels. Leaves 6-7cm long x 3-5cm wide., yellow in fall. Or: Hojbjer v. Arhus.

BETU012 - *Betula tianshanica* EMERALD FLARE™ 'EmerDak' - 30 ft. tall x 12 ft. wide, narrowly pyramidal, bark white, gray, and undertoned orange, exfoliating and very showy. Leaves rich, emerald green, bright medium shade at first, later darker green., darker foliage than other trees in their evaluations, bright golden-yellow in fall. Tolerant of drought and higher pH soils. Ch: USDA 3a. Or: North Dakota State University, highly elite seedling of unknown origin, proven after 17 years, https://www.ag.ndsu.edu/plantsciences/research/introductions/emerald-flare/files/emerald_flare_data_sheet.pdf, accessed 5.1.2017. It also appeared under the name EMERALDS BEACON™ 'EmerDak' in https://www.ag.ndsu.edu/plantsciences/research/woody-plants/docs/NDSU_WPIP_Intro_Descriptions.pdf, accessed 5.11.2017

BETU012 - *Betula pendula* 'Zold Skazall' - dwarf and weeping, densely branched, suitable for smaller gardens while full-sized clones might be too large. Or: Hungary.

BUDD001 - INSPIRED™ WHITE

BUDD002 - Buddleia 'Painted Lady'

BUDD003 - Buddleia 'Asian Moon' (Monrovia)

BUDD004 - Buddleia davidii GROOVY GRAPE (Bailey Nurseries)

REGISTRATION PENDING - Buddleia 'Crown Jewels', 'Glass Slippers', 'Dark Dynasty', 'Jousting Jester', etc. (Walters Gardens)

BUDD005 - Buddleia 'Pink Micro Chip' (Proven Winners, Dr. Dennis Werner, North Carolina State University)

BUDD006 - Buddleia 'Pink Pagoda' - habit upright-spreading to mounded. Flowers pink, in narrowly conical panicles, "continuously flowering". Seedless. US Patent #23214 to Peter Moore, England as cross of *B. weyeriana* 'Sungold' x *B. davidii* 'Pink Delight'.

BUDD007 - Buddleia 'Miss Violet' - 4-5 ft. tall x wide, compact. Flowers dark purplish-violet. Bred by Dr. Dennis Werner, North Carolina State University. Springmeadownursery.com, accessed 4.30.2015.

BUDD008 - Buddleia davidii MERRY MAGIC® ORCHID 'SMBDPB' - 4-5 ft. tall x wide, more compact. Flower panicles very narrow but densely flowered, rich purple to violet, highly floriferous. Springmeadownursery.com, accessed 4.30.2015.

BUDD009 - Buddleia davidii GULLIVER - 1.75m tall. Flower spikes to 30cm long, wide, thick, fully flowered, corolla lilac with small orange eye. Cold hardy to -18 deg. C. Eur. PBR to East Malling Research, UK.

BUDD010 - Buddleia HUMDINGER™ 'Magenta Munchkin' - 28-36 in. tall, dwarf, compact, neat. Flower panicles 7-8 in. long, "fuchsia-red" (photos appear deep violet-fuchsia to violet-lavender), small orange eye, blooms before a few weeks before MONARCH Series cultivars. Walters Gardens, intro. 2015.

BUDD011 - Buddleia davidii 'Sophie' - 30-60 cm tall x 50-80cm wide, smaller in containers, larger in open ground, very compact, unusual habit being a sphere of cascading long, flowering shoots. Flowers in long panicles, lightly scented, light purple to rich lavender. Leaves light green. In, ph: <http://www.newplants.nl/en/planten/b/buddleja-davidii-sophie/>, accessed 10.11.2017

BUDD012 - Buddleia HUMDINGER™ 'Orchid Annie' - 2.5-3.0 ft. tall x 3.5-4.0 ft. wide, compact, subglobose, neat, refined. Flower corolla orchid-purple, buds a darker purple, inflor. to 8 in. long. <http://www.waltersgardens.com/plants/view/?plant=2580>, accessed 10.11.2016. Walters Gardens 2015 intro.

BUDD013 - Buddleia HUMDINGER™ 'Little Nugget' - 2.5-3.0 ft. tall x 3.5-4.0 ft. wide. Flower corolla dark bluish-purple to violet-purple, panicle 5-6 in. long, very early in season compared to other clones, up to 4 weeks before others of this color. Leaves bright yellow, becoming more lime to chartreuse.

BUDD014 - Buddleia HUMDINGER™ 'Lavender Cupcake' - 3.5-4.0 ft. tall x 4.0-4.5 ft wide, compact. Flowers light-medium lavender to light purple, very long 12 in. panicles. Leaves grayish-green. Or: Walters Gardens, intro. 2015

BUDD015 - Buddleia HUMDINGER™ 'Little Angel'

BUDD016 - Buddleia 'Dreaming Lavender' - 8-20 in. tall x wider, low, dwarf, spreading to semi-pendulous. Flowers pale silvery-lavender to medium lavender. Sold under the BLOOMTASTIC!® trademark but since that spans more than one genus (*Buddleia*, *Agapanthus*, *Skimmia*), it is considered a marketing entity and not a taxonomic name, hence not registered here.

BUDD017 - Buddleia 'Purple Splendor' - 8-20 in. tall x wider, low, dwarf, spreading to semi-pendulous. Flowers violet-purple to magenta-purple, eyezone white with gold ring.

Leaves very silvery when new. Sold under the BLOOMTASTIC!® trademark but since that spans more than one genus, it is considered a marketing and not a taxonomic name, hence not registered here.

BUDD018 - Buddleia BLAZE PINK™ 'Bosblink' - 1.5-1.9m tall x 1.3-1.6m wide, flowers "first really hot pink Buddleia", medium pink but photos at Ball Ornamentals are clearly toned violet-pink, more magenta-rose to me, foliage silvery, very long bloom period. US Patent #25731

BUDD019 - Buddleia TRU-BLUE™ 'Bostulu' - 1.6-1.9m tall x 1.2-1.6m wide, plants erect, strong stems, flower color true blue slightly lavender-blue, reblooms well in summer, very low seedset, foliage very silvery-gray. US Patent #25708

BUDD020 - Buddleia VANILLA TREAT™ 'Grevantrt' - 3-5 ft. tall x wide, compact, neat. Leaves light to medium green. Flower corolla near pure white, light fragrance. Web: www.gardendebut.com, accessed 5.22.2016

BUDD021 - Buddleia 'Miss Pearl' - 4-5 ft. tall x wide, dense, compact flowers in dense panicles, floriferous, corolla pure white, slightly and pleasantly undulate. Seedless and thus not invasive from seed. Or: Dr. Dennis Werner, North Carolina State University as 2009 cross of 'Ice Chip' and 'Miss Molly'. In: www.springmeadownursery.com, accessed 12.23.2015. The entire cultivar release notes page from Werner and NCSU is found here: https://cals.ncsu.edu/hort_sci/research/expertise-pages/PlantBreedingBuddleja.php

BUDD022 - Buddleia 'Glass Slippers' - 3 ft. tall x 5 ft. wide, stems silvery-tinged, lower and more spreadint than some clones, flower heads compact, numerous, corolla periwinkle blue, secondary bloom until fall is common. Or, in: Walters Gardens, intro. 2014. This same firm also offers new introductions

BUDD023 - Buddleia HUMDINGER™ 'Prince Charming' - "gumdrop-shaped" habit. Flower corolla rich cerise-pink, infl. to 10 in. long, more of a raspberry pink than a purplish-pink. <http://www.waltersgardens.com/plants/view/?plant=2646>, accessed 10.11.2016, introduced by Walters Gardens 2016

BUDD024 - Buddleia MONARCH® 'Princess Bride' - 3.0-3.5 ft. tall x 4.0-4.5 ft. wide, dense, compact, slightly wider than tall. Flower corolla white from pale green buds, strongly scented, panicle 8-10 inches long, secondary panicles numerous. Leaves darker green, especially for a white-flowered clone. In: Walters Gardens, intro. 2014. In, ph: <http://www.perennialresource.com/encyclopedia/view/?plant=2461>, accessed 10.15.2016

BUDD025 - Buddleia MONARCH® 'Queen of Hearts' - 2.5-3.0 ft. tall x 3.5-4.0 ft. wide, small, compact, neat. Flowers rich reddish-violet to magenta-red, panicles 7-9 in. long, very numerous. Or, in: Walters Gardens, intro. 2014. In, ph: <http://www.perennialresource.com/encyclopedia/view/?plant=2463>, accessed 10.15.2016. Pat: <http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=PP27987.PN.&OS=PN/PP27987&RS=PN/PP27987>

BUDD026 - Buddleia MONARCH® 'Royal Falls' - 2.5-3.0 ft. tall x 5-6 ft. wide, spreading and cascading when in flower. Flower corolla rich amethyst blue to bluish-lavender, rich scented, panicle 7-9 in. long. Leaves dark green. Or, in: Walters Gardens, intro. 2014. In, ph: <http://www.perennialresource.com/encyclopedia/view/?plant=2464>, accessed 10.15.2016

BUDD027 - Buddleia SODA POP PURPLE 'UCONNBD610' - compact, outward-spreading, freely branched, thick stems, short internodes, dense, compact. Leaves thicker, leavcty, Flowers magenta pink, info. broadly conical, very numerous. Or, pat: US# 27471 on 12.20.2016 to Mark Henry Brand and William Smith, assigned to the University of Connecticut (aka "UCONN"), hybrid made in 2008 at Storrs, CT, USA of 'Royal Red' x unnamed dwarf seedling, selected 2010.

BUDD027 - Buddleia PUGSTER™ BLUE 'SMNBDBT' - 2 ft. tall x wider, very compact, dwarf, heavy thick stems. Flower corolla violet-blue, centered orange, this series known for full-sized racemes on a dwarf plant. Web, in, or: <http://springmeadownursery.com/plant/06940>, accessed 3.13.2017

BUDD028 - Buddleia PUGSTER™ WHITE

BUDD029 - Buddleia PUGSTER™ PINK

BUDD030 - Buddleia PUGSTER™ PERIWINKLE

BUDD031 - Buddleia SODA POP WHITE 'UCONNBD603' - <http://naturally.uconn.edu/2017/05/09/five-new-butterfly-bushes-bring-vibrant-color-and-unique-foliage-to-proven-winners/>

BUDD032 - Buddleia SODA POP LAVENDER 'UCONNBD599'

BUDD033 - Buddleia SODA POP BLUE 'UCONNBD604'

BUXU001 - *Buxus microphylla* var. *japonica* SPRINTER™

BUXU002 - *Buxus microphylla* 'Eseles' (image, Government of Canada, PBR)

BUXU003 - *Buxus sempervirens* 'Skywalker' (Concept Plants) - US# 22977 From Mark Ellerbrook of Beaverton, Oregon, is the vigorous clone (growth up to 30 in. a year for up to 6 seasons) that is "very columnar...with a low amount of lateral branching", keeping green color much of the year, and resistant to common boxwood root diseases. Dimensions at six years are 1.8 meters x 30-38 cm.

BUXU004 – *Buxus sempervirens* 'Jack Rudolph' – 6 ft. X 4 ft. wide In many years, arborescent, conical, slightly cascading branches. Ritas Rare Plants, Tennessee from her father's boxwood breeding program of 1940's-1050's. Camforest.com, accessed 4.23.2015

BUXU005 – *Buxus sempervirens* 'Ruth Rudolph' – 5 ft. tall x wide in many years, weeping. Rita's Rare Plants, Tennessee, from her father's boxwood breeding program. Camforest.com, accessed 4.23.2015

BUXU006 - *Buxus sempervirens* 'Golden Swirl' - www.cistus.com, accessed 3.29.2016

BUXU007 - *Buxus microphylla* var. *koreana* EMERALD KNOLL® 'RLH-B1' - 1.5-2.0 ft. tall x 3-4 ft. wide, low, mounding-spreading, patent says "outwardly spreading to decumbent, billowy and mounding", vigorous, freely branching, flexible lateral limbs resist cracking and splits, very fine-textured, compact, far less tufted and congested compared to 'Morris Dwarf' and less rigid than it. Leaves rich emerald green all year, not bronzing in winter or cold weather. US Patent #24443 on May 13, 2014 to Robert and Lisa Head, Seneca, South Carolina USA as sport of 'Kingsville' in 1991.

BUXU008 - *Buxus microphylla* 'Little Missy' - 16 in. tall x 30-40 in. wide, densely mounded to flat-subglobose, 2-3 in. growth a year. Leaves dark green, glossy, all year, not bronzing, blade smaller than species typical clones (1.6cm long x 1.0cm wide).. USDA 5 hardiness. [US Plant Patent #24703](#) on July 29, 2014 to Norman H. Cole III as chance seedling, assigned to Cp Delaware Inc.

BUX009 - *Buxus sempervirens* 'Thomas Jefferson' - 5 ft. tall x 2 ft. wide, or 6 ft. tall x 3 ft. wide (12 years), 12 ft. tall x 6 ft. wide (30 years), narrowly upright-ovoid to ellipsoidal to narrowly pyramidal, not always columnar, 45 deg. branch angle (wider than 'Dee Runk'), 3-6 in. growth a year, resistant, strong limbs resist snow and ice damage. Leaves glossy, dark green all year, not bronzing. [US Plant Patent #23869](#) on Sept. 3, 2013 to Thomas M. Patrick, Jr., chance seedling 1964, assigned to Saunders Bros. Inc., named for the US President as it was discovered in Charlottesville, Virginia, his home. An attempt to trademark this name or 'Mr. Jefferson' failed and is now marked as "CANCELLED - SECTION 8", which generally implies the name was not is use after 6 years or verified to be so.

BUX010 - *Buxus sempervirens* 'Wonford Page' - new growth heavily suffused yellow (40-90%), becoming sectored and striped cream to light yellow at 30-50% surface. So: <http://www.bloomriver.com>, accessed 5.16.2016

BUXU011 - *Buxus microphylla* var. *japonica* BABY JADE™ 'Grejade' - 3 ft. tall x wide, subglobose to mounded, dense with maturity, shorter internodes than variety typical, averaging just 6mm, moderate growth rate.. Leaves small, 1.8cm long x 0.8 wide, elliptic, base cuneate, apex obtuse, dark green all year, not bronzing. USDA 5. Or, pat: US #26656 on April 26, 2016 to Jane Marie Kubala, El Campo, Texas, USA and Bill Bar, Rosenberg, Texas, USA as sport of 'Gregem' in 2010. Web: <http://www.gardendebut.com/plantName/Baby-Jade-Boxwood>

BUXU012 - *Buxus microphylla* PETITE PILLAR™ 'MonAlex' - 2-3 ft. tall x 2 ft. wide, dwarf to semi-dwarf, columnar, very dense, requiring little or no shearing as hedge or narrow column. Leaves glossy, medium green. USDA 5. Web: <http://www.monrovia.com/plant-catalog/plants/5162/petite-pillar-dwarf-boxwood> , accessed 4.6.2016

BUXU013 - *Buxus sempervirens* JADE PILLAR™ 'Furore' - 4-5 ft. tall x 2-3 ft. wide, columnar, useful for hedge purposes. Leaves dark green. US# 21319

BUXU014 - *Buxus* SHADOW SENTRY™ 'DSNJH 1216' - 8 ft. tall x 3 ft. wide, narrowly pyramidal, erect. Leaves medium green, holding color in winter. Ch: to -20 deg. F. In, ph: https://www.greenleafnursery.com/index.cfm?fuseaction=plants.plantDetail&plant_id=6951&typeID=&whichname=genus, accessed 10.11.2016

BUXU015- *Buxus microphylla* GREEN BORDERS™ 'Grebor' - 2-3 ft. tall x 3-4 ft. wide, fine-textured, horizontal. Leaves dark green. Or: Greenleaf Nursery. Web, ph: <http://www.gardendebut.com/plant/Green-Borders-Boxwood>, accessed 10.11.2016

BUXU016- *Buxus* GORDO™ 'Conrowe' - 4 ft. tall x wide, compact, globose, requires minimal pruning, leaves large for a dwarf clone, glossy green, "scalloped", cold hardy to -10 to -20 deg. F.Pat: US#19924



Callicarpa japonica
WHITE SPRITZER
(TM)
'Shiji Murasaki'

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www.cultivar.org

CALL001 - *Callicarpa japonica* WHITE SPRITZER™ is one of the best variegated clones in the genus and the violet-pink new tips make it quite the glorious, tricolored creation. It has great vigor unlike a speckled sport of this same species I found in the 80's which never proved market worthy. This is truly one of the finest variegated, deciduous shrubs of any genus and makes a nicely fine-textured, compact pyramidal piece; never wild nor too crazy if given enough light. Click image to enlarge. Above image not part of OROC Data Sharing.



CALL002 - *Callicarpa kochiana* 'Yamaguchi Variegated' - leaves large, 4-8 inches long, 1.5-2.0 inches wide, elliptic, boldly sectorially and marked in clean white to cream, 25-45% surface in strong plants,, other sectors, spots, and markings in lime or a paler green than the dark green base color, margins very fine serrulate with 20-32 teeth per side. Known to us from a specimen at the JC Raulston Arboretum, also offered by nurcar.com, accessed April 2013.

CALL003- *Callicarpa* PEARL GLAM™ 'NCCX2' (*C. dichotoma* x *C. kwangtungensis*) - habit erect, neat (from second parent), leaves richly tinged purple (also from *C.k.*), fruit rich violet-pink, abundant, early (mostly from first parent). Or: Dr. Tom Ranney, NC State University in cooperation with Spring Meadow Nursery. In: www.springmeadownursery.com

CALL004 - *Callicarpa* PLUMP AND PLENTIFUL™ PURPLE GIANT 'O5-132' - fruit purple, abundant, covering branches almost completely. Offered by www.heritageseedlings.com, online Wholesale Catalog 2015-2016 (PDF), accessed 2.16.2016

CALL005 - *Callicarpa* PLUMP AND PLENTIFUL™ LILAC - 5-6 ft. tall x 4 ft. wide. Fruit purplish-lilac, covering each branch, very abundant. Or: Kolster
Web: <http://plantsnouveau.com/plant/callicarpa-plump-plentiful-lilac/>, accessed 10.7.2016

CALL006 - *Callicarpa* PLUMP AND PLENTIFUL™ AMETHYST - 5-6 ft. tall x 4 ft. wide. Fruit violet-purple, very abundant, persisting into winter. Or: Kolster
Web: <http://www.plantsnouveau.com/plant/callicarpa-plump-plentiful-amethyst/>, accessed 10.7.2016

CALL007 - *Callicarpa bodinieri* IMPERIAL PEARL® 'Minpro2' - 1.5-2.5m tall x 1-2m wide. Fruit abundant, mauve-violet, very showy. Or: Minier Nurseries, France, intro. 2014

CALY001 - *Calycanthus floridus* 'Van der Geiseen's Choice' - Flowers of exceptional fragrance. Selected by Maarten van der Geiseen of Semmes, Alabama USA, Nurcar.com, accessed April 2013.

CALY002 - *Calycanthus floridus* 'Coker Cottage' - plants 10 ft. tall x wide, vigorous, strong, durable in USDA 7b (Chapel Hill, North Carolina). Flowers red, small but very numerous. Leaves a good yellow in fall. Originated from a notable tree at the Coker Arboretum, University of North Carolina, Chapel Hill, North Carolina. That same old arboretum on campus also holds the original tree of *Liquidambar styraciflua* 'Rotundiloba', a popular and unique tree that is fruitless with curiously rounded lobes, prized over the world.

CALY003 - *Calycanthus* (*C. chinensis* x *C. floridus* var. *oblongifolius*) 'Hongyun'. Flowers large, red, 2 whorls of tepals. Abstract: [Acta Hort. Sinica 41 \(8\): 1755-1756 \(2014\)](https://doi.org/10.1007/s11430-014-9175-5).

CALY004 - *Calycanthus floridus* var. *purpureus* 'Burgundy Spice' - leaves glossy, rich chocolate-purple to reddish-purple. Or: Rich Heesellein, Pleasant Run Nursery, Allentown, New Jersey, USA. In: Star Roses and Nurseries c. 2015, https://issuu.com/starrosesandplants/docs/srp_catalog_2017_allpages, accessed 8.11.2016. It does not appear at <http://www.pleasantrunnursery.com>, when a search was run on 8.11.2016 nor when the "New Plants" bar was pressed.

CALY005 - *Calycanthus x raustonii* 'Solar Flare' - 6-9 ft. tall x wide, flowers tepals rich maroon red, favoring *C. floridus*, inner tepals bright golden, marked and suffused maroon red in their low two-thirds, rich fruity scent, leaves showy yellow in fall. Or: Dennis Ludvina. Web: <http://www.songsparrow.com/catalog/plantdetails.cfm?ID=5043&type=WOODY.&pagetype=plantdetails>, accessed 5.9.2017

CALY006 - *Calycanthus floridus* 'Big George' - habit dense, subglobose, leaves dark green, reliably yellow in fall, flowers reddish-brown, good fruity scent. Or: Transplant Nursery, Georgia, USA, named for it's founder George Beasley.

CALY007 - *Calycanthus floridus* ROY'S DARK RED™ 'KLMY' - 6-8 ft. tall x 8-10 ft. wide (10 years), flower tepals much darker red, rich fruity scent. Or: Roy Klehm as F2 hybrid seedling, Klehm's Song Sparrow Nursery c. 2015, <http://www.songsparrow.com/catalog/plantdetails.cfm?ID=2791&type=WOODY.&pagetype=plantdetailsm>, accessed 5.11.2017, said to be backordered under 9.1.2017.



Campsis grandiflora 'Morning Calm'

CAMPS001- Campsis grandiflora 'Morning Calm' - Dr. JC Raulston's amazing selection that remains superior to most *C. radicans* and hybrid selections for corolla coloration, vigor, and a huge 1.5 to 2.0 inch wide trumpet face. If this looks like an impossible tropical flowering vine - it should not - for it does well in USDA 6-10. The huge trumpet is melon at times, in other portions of the day a richer orange, orange juice to Nasturtium, other times a somber, dark vermillion-orange, a delicately veined throat of gold and darker shades, and very often a blend of all these curious, prismatic pigmentations; showing reflective crystals in the tissue and odd tones from the very opening of each flower. Images above and below not part of OROC Data Sharing.

CAMPS002- Campsis x tagliabuana ORANGEADE® 'Tracamp' - from Sapho.fr has the first boldly bicolored, chimera-style flowers in this genus, contrasting rosy-gold with rich magenta pink at every toss of a shadow and sunbeam. Frankly, I thought we'd see gold veined red flowers or red-veined gold flowers before a chimeral bicolor beauty like this one. Click image to enlarge.

CAMPS003 - *Campsis radicans* ATOMIC RED™

CAMPS004 - *Campsis* 'Chastity' (Dr. Tom Ranney, North Carolina State University, triploid)

CAMPS005 - *Campsis radicans* 'PRN Redbird' (Pleasant Run Nursery, their own selection)

CAMPS006 - *Campsis* SUMMER JAZZ FIRE (Plantarium.nl)

CAMP007 - *Campsis* x *tagliabuana* GRENADINE® 'Rutcam' - flowers to 8cm wide, rich red to orangish-red corolla, tube on exterior more orange, effectively a true red from a distance, very floriferous until fall.

Or: John Ruter.

CARE001 - *Caragana* GREEN SPIRES® 'Jefarb' (*C. arborescens* x *C. frutex*) - 12 ft. tall x 8 ft. wide, upright to subglobose. Leaves dark green, very pest and disease resistant. Seedless. Ch: USDA 2. Or, in: Greg Morganson, Bismarck, North Dakota, introduced by <http://www.jeffriesnurseries.com/p7-17.pdf>, accessed 1.7.2017

CARP001 - *Carpinus betulus* 'Stegemann's Primus' (Minier Nurseries) - conical, vigorous, regularly branched. Selected by J. Stegemann, Eur. CPVO to him 2005.

CARP002 - *Carpinus betulus* ROCKHAMPTON RED 'Lochglow' (Planteria.eu) - uniform crown. Leaves with reliably showy, colorful orangish-red to red call colors. Eur. CPVO to Geoff Locke 2014. Planteria.eu winner. See <http://www.planteria.eu/news/241/rockhampton-red-wins-for-batouwe>



CARP003 - *Carpinus japonica* 'Silver Lace' is a stunning entity among all cut-leaved trees, a fine recent introduction, quite a feathery to almost pin-like or ciliate sort of margin, bearing a pale silvery-green hue in the sun. The spiky, narrow blades carry a special, odd rugosity, the sort normally found only in herbaceous plants, where the long, convex bubble between the secondary veins turns into the thin, sharp tooth, making the lateral veins sunken, reflecting yet more white or pale green light. Anyone who knows, collects, and studies our lacinate trees and shrubs will know this is a very unique, useful release, cuter than cute, and prettier than your best girl in silver lace. Buchholz Nursery has it for one.



CARP004 - *Carpinus caroliniana* 'Stowe Cascade', a semi-weeping, elegantly drooping at least variant on that other species that rarely gets selected for cultivars. This beauty is shown at the JC Raulston Arboretum and originated about 4 hours to the southwest at the Daniel Stowe Botanic Garden in Charlotte, NC. Image copyright owned by and courtesy of Laurence Hatch.

CARP005 - *Carpinus caroliniana* BALL O'FIRE™ 'J.N. Globe' - 15-20 ft. tall x wide, compact, globose. Leaves reliably showy, orange to red in fall, some yellow for contrast Selected from superior tree in wild, Waukesha, Wisconsin, USA by johnsonnursery.com.

CARP006 - *Carpinus caroliniana* FIRESPIRE™ 'J.N. Upright' - 20 ft. tall x 10 ft. wide, distinct erect. Leaves boldly coral-red to orangish-red in fall, interior canopy leaves often a dark burgundy. Johnsonnursery.com, accessed 5.2.2015.

CARP007 - *Carpinus caroliniana* NATIVE FLAME® 'JFS-KW6' - 30 ft. tall x 20 ft. wide, upright, ovoid. Leaves dark green in summer, high quality texture, reliably orange to red shades, very showy in fall. jfschmidt.com, accessed 5.2.2015

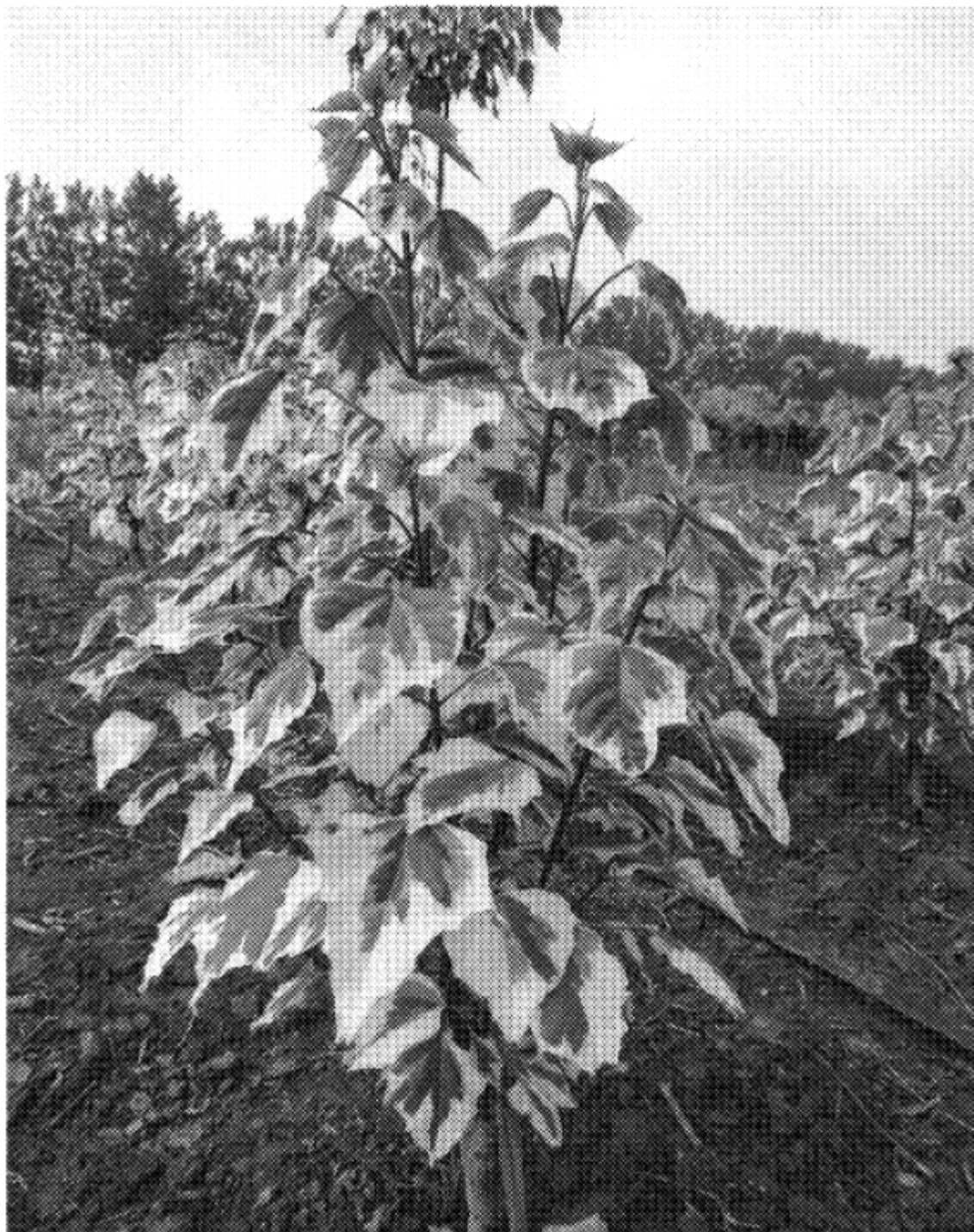
CARP008 - *Carpinus betulus* ORANGE RETZ® - leaves very bright orange in fall. Eur CPVO to Jean Blondeau 2014.

CARP009 - *Carpinus caroliniana* RISING FIRE™ 'Uxbridge' - 30 ft. tall x 15 ft. wide, more narrow and upright than species typical, columnar to narrowly ovoid, vigorous, uniform. Leaves reliably bright red to orange shades with some yellow in fall. Hardy in Ontario, Canada where it originated.. So: www.jfschmidt.com, accessed 6.15.2016

CARP009 - *Carpinus caroliniana* 'Eisler' ('Eisler Select') - a listed name. "Select" is a term not permitted in cultivar names by the code.

CATA001 - *Catalpa speciosa* HEARTLAND® 'Hiawatha 2' (J.F. Schmidt) - 50 ft. tall x 25 ft. wide, "upright narrow oval", more narrow and more uniformly branched than

species typical. Leave darker green than species typical. jfschmidt.com, introduced 2015, accessed 5.31.2015.



CATA002 - *Catalpa bungei* 'Menghuan' ("Colorful Manchurian Catalpa") - leaves margined rose-red at first, later becoming edged yellow and finely white in irregular width, margins "very wavy", adding to the interest, the chimera appearing to be from 15-55% of the leaf surface according to the US Patent application drawings, one of which is shown above. Or: mutation found on May 5, 2011 on road side in Long'an District, Anyang City, Henan Province, China. It was grafted on May 10, 2011 onto species stock. US Patent applied for on March 16, 2016 by Huaming Wang, Suiping, China. It is the opinion of our attorney and many others that US Patent application data is entirely in the public domain unless the applicant makes an order to copyright the known drawings, symbols, or images. Lacking such evidence to the contrary, we freely publish this image here, however asking it be attributed to the originator in a proper scientific manner.

CEDU001 - *Cedrus atlantica* 'Blue Fountain' - originators place the species *C. atlantica* under *C. libani*.

CEDU002 - *Cedrus deodara* FEELIN' SUNNY® 'MonKinn' - 5-12 ft. tall x 6-8 ft. wide (10 years) per Monrovia website, US Patent app states "plant height 62cm...diameter about 65cm...compact and low spreading...slow-growing, freely branched, dense and bushy...slower growing and more compact than than plants of 'Golden Horizon'...not as mounding as trees of 'Golden Horizon'", Monrovia's images, accessed 8.6.2016, show cascading plants and one grafted high on a standard so it remains unclear if it will be marketed as a classic pyramidal conifer or in other forms.. Leaves bright yellow most of the year including winter ("greyed yellow..becoming golden yellow" per US Patent app), sunburn resistant, internal or shaded foliage becoming lime and perhaps close to typical green. In: Monrovia Nursery, offered by them in 2017, <http://www.monrovia.com/plant-catalog/2017-featured-plants/>, accessed 8.2.2016. Pat, or: US# 23886 to Ron Damien Kinney on Sept. 10, 2013, sport of 'Feelin' Blue' in 2004 appearing in Dayton, OR, USA. assigned to Monrovia Nursery.

CEDU003 - *Cedrus deodara* STERLING FROST™ 'Grester' - 40-50 ft. tall x 20-30 ft. wide as young plants, tall, erect, weeping tips. Needles rich bluish-green, frosted with bluish-silver, overall nearly as blue as many *Picea pungens* while not being as dark and marine a blue as *Cedrus atlantica* f. *glauca*. Web, ph: <http://www.gardendebut.com/plant/Sterling-Frost-Deodar-Cedar>, accessed 10.5.2016

CEDU004 - *Cedrus deodara* 'Mt Buffalo' - habit miniature, very dwarf, thick branches and stems almost looking like small trunks, very low to prostrate. Leaves bluish-green.

CEDU005 - *Cedrus libani* 'Wells Roman Gold' - Or, in: <http://wellsnurseries.com/availability/>, accessed 10.7.2016

CEPH001 - *Cephalotaxus harringtonia* 'Gold Dragon' (Hawksridge Farms) - 2-3- ft. tall x 4-5 ft. wide. Leaves golden-yellow in new growth.

CEPH002 - *Cephalotaxus harringtonia* 'Gold Splash' - habit spreading-mounded, decumbent, much as 'Duke Gardens' but having golden-yellow shoot tips. So: <http://www.brokenarrownursery.com>, accessed 6.12.2016,

CERCID001 - *Cercidiphyllum japonicum* CLAIM JUMPER™ (Broken Arrow Nursery) - new leaves rose pink, becoming yellow

CERCID002 - *Cercidiphyllum japonicum* HANNA'S HEART® 'Biringner' - Habit erect, compact. Leaves darker green, rich yellow in fall, leaves held longer due to increased cold resistance. Cold hardiness greater. www.biringernursery.com, accessed 4.19.2015

CERCID003 - *Cercidiphyllum japonicum* 'Dawes Ascension' - 40-60 ft. tall x 20-30 wide. Young trees densely columnar, older plants more pyramidal, narrower than species

typical. Or: Dawes Arboretum, bef. 1993, <http://dawesarb.arboretumexplorer.org/taxon-20758.aspx>, accessed 5.16.2016

CERCID004 - Cercidiphyllum japonicum 'Compact Globe' - 15-20 ft. tall x wide, subglobose, smaller tree than species typical seedlings. So: www.forestfarm.com, accessed 3.10.2017

CERC001 - Cercis canadensis 'Pink Pom Poms' (Dr. Dennis Werner, North Carolina State University, new cultivar, double flowers)

CERC002 - Cercis canadensis 'Vanilla Twist'- weeping with white flowers, a new combination.

CERC003 - Cercis canadensis RED FORCE® 'Minrouge3' (Minier) - leaves bright purplish-red, not purple as 'Forest Pansy'



CERC004 Cercis canadensis CAROLINA SWEETHEART™ 'NCCC1'. This outstanding cross of purple and variegated leaf genetics in redbud by Dr. Tom Ranney produced spectacular glowing pink hearts of new foliage. It is amongst the most colorful and pretty variegated trees on the planet, rivaling Japanese maples and sycamore-maple cultivars for flash and a designer aura of new tips. Image courtesy of and copyright owned by Tom Ranney.

CERC005 Cercis canadensis LUCIOUS LAVENDER™

CERC006 Cercis canadensis RADIANT LIPSTICK™

CERC007 - Cercis canadensis 'Alley Cat' - leaves heavily white-streaked and white-spotted, chimera about 35-50% blade surface, new growth slightly tinged copper to pink, more sun scorach resistant in warm climates, variegation very stable. Or: Allen Bush, Louisville, Kentucky, USA as chance seedling he discovered in an alley near his home. In: Harold Neubauer, Hidden Hollow Nursery, hiddenhollownursery.com, accessed April 2014. Our previous Book I incorrectly attributed origination to Mr. Neubauer as he was the first to propagated it. We thank Dr. Dennis Werner, Cercis geneticist extraordinaire and redbud scholar for this correction. It is considered as a superior clone to 'Floating

Clouds' and 'Silver Cloud' for sun tolerance and refined summer coloration.

CERC008 - *Cercis chinensis* 'Spring Snow' - flower corolla white, numerous. Introduced by www.wairere.co.nz, accessed 4.25.2015

CERC009 - *Cercis chinensis* 'Brandywine' - listed name, not described, www.bluehorizonnursery.com, accessed June 2015

CERC010 - *Cercis* SUMMER'S TOWER™ 'JN7' - 20-25 ft. tall x 10-12 ft. wide, habit "tight, upright vase-shaped", vigorous. Flowers pinkish-lavender over entire limbs. Web: <http://www.gardendebut.com/plant/Summers-Tower-Redbud>, accessed 9.20.2016. Or: Ray Jackson.

CERC011 - *Cercis* COTTON CANDY™ 'John Sjo' - 20 ft. tall x 30 ft. wide, close to species typical. Flower corolla pale pink, lavender striations, calyx darker pink. Leaves green, yellow in fall. web: http://www.gardendebut.com/index.cfm/fuseaction/plants.plantDetail/plant_id/6577/index.htm, accessed 9.20.2016

CHAE001 - DOUBLE TAKE™ Series (Proven Winners)

CHAE002 - *Chaenomeles speciosa* RED PREMIER™ 'Greredpre' - 3-4 ft. tall x 3 ft. wide, compact. Flowers very dark red., double but less so than DOUBLE TAKE Series, cupped, stamens gold and showy. Greenleaf nursery.com, accessed 5.4.2015

CHAE003 - *Chaenomeles* 'Green Ice' - flower corolla chartreuse in bud, later white tinged green, semi-double. Introduced by www.wairere.co.nz, accessed 4.25.2015

CHAE004 - *Chaenomeles speciosa* RED PREMIER™ 'Greredpre' - 3 ft. tall x 4 ft. wide, dense yet vigorous, compact with maturity, intertwining beanchlets. Flowers early, medium to medium-dark red, double, cup-shaped, showy golden stamens. Web: www.gardendebut.com, accessed 5.22.2016, https://issuu.com/gardendebut/docs/2016_catalog-online/1

CHAE005 - *Chaenomeles speciosa* MANGO STORM 'Mincha01' - Thornless. flowers semi-double, 5-8 cm wide, coral-orange as in mango fruit, gold stamens still visible unlike some fuller doubles. Seedless. Ns: there is no connection we can find between this name and 'Pink Storm', 'Orange Storm', and 'Scarlet Storm' of Dr. Ranney as it appears to be a European production from Minier in 2015.

Web: <http://www.pepinieres-minier.fr/fichePlante.php?codePlante=12468&route=plantes-nouveautes-research>, accessed 10.11.2016

CHAE006 - *Chaenomeles speciosa* RED KIMONO™ 'Ainoomoi'- habit erect, 1.5m tall, stems thornless. Flower corolla bright red, very showy. Pat: Euro PBR 20151486 In, web: <https://www.plantipp.eu/en/Plants/chaenomeles-speciosa-red-kimono-ainoomoipbr-2/>, accessed 10.11.2016

CHAE007 - *Chaenomeles* 'Dart's Coverpower' - low spreading mound, a floriferous groundcover, flowers light orange, numerous. Or: Darthuizer Nursery.

CHAM001 - *Chamaecyparis obtusa* 'Cooper's Gem' (RHS, Nomenclatural Standard, JSTOR)

CHAM002 - *Chamaecyparis obtusa* 'Sunny Swirl' (Iseli Nursery)

CHAM003 - *Chamaecyparis obtusa* NIGHT LIGHT™ (Star Roses) - I really had to get a grip when the patent application compared this globose, golden, plumose gem to "Grippsii" instead of the obvious 'Elmwood Gold', sport or seedling too of 'Crippsii'. I'm glad the US patent inspectors don't do road tests of cars because we'd be having a Lambo Aventador racing a Ford Fusion. They seem to have no clue what are legit comparisons (originators also spinning the match up to their end when the clone may or may not be unique at all) and miss the one, two, or three obvious benchmarks already in gardens and the trade too. The big Cripp's false-cypress is pretty and durable from USDA 5 to 8, handling Raleigh, NC with as much ease as Rochester NY. If this is half as good as the tales from the Cripps in gardens, it should be splendid indeed.

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Chamaecyparis thyoides BLUE ROCK(R)
'Versent'



CHAM004 - *Chamaecyparis thyoides* BLUE ROCK® 'Versent' is as good as the dwarf Chamies of the Squarrosa Group and probably more cold hardy and less browning with age. We will see but this baby looks like a winner and glows with such lovely sapphire tones. This image is not part of OROC Data Sharing.

CHAM005 - *Chamaecyparis obtusa* 'Butter Ball' - habit dwarf, subglobose, fern-like in texture but more elegant than similar older clones. Leaves lemon-yellow, inner foliage lime to dark green, given some contrast. Iselinursery.com, accessed October 2013.

CHAM006 - *Chamaecyparis pisifera* (Filifera Group) 'Angel Hair' - habit dwarf, filiform texture as the Filifera Group, slower and thinner than classic clones of the group. Found in New York by Mike and Ken Yaeger, Hickory Hollow Nursery. Iselinursery.com, accessed October 2013.

CHAM007 - *Chamaecyparis obtusa* JADE WAVE™ 'MonYur' - 6-8 ft. tall x 3-4 ft. wide, compact, uniform, pyramidal, foliage units in waves, branches "gracefully curved...fern-like". As a long term student of the species (L. Hatch, Editor), this has a far more flat and plumose a spray than normal for this species, and I would imagine a seedling of 'Lycopodioides Aurea' crossed to the species might give a similar look, the branchlets very spread out and articulated into fine, ferny units. Tips don't curl down like many gold or near gold seedlings in this species.. Leaves bright to pale green, tips closer to lime, a sort of popular notion of a jade color, while that true stone covers everything from pale to dark green and some blues. USDA 4. In: <http://www.monrovia.com/plant-catalog/plants/5750/jade-wave-fernspray-false-cypress/>, accessed 8.2.2016

CHAM008 - *Chamaecyparis nootkatensis* 'Boykos Glitter Falls' - pendulous much as 'Pendula', foliage mottled cream to about 35% surface. Or: Jim Boyko.

CHAM009 - *Chamaecyparis obtusa* 'Bridget' - 8 ft. tall x 6 ft. wide, dwarf, broadly upright, tight scaly leaves but many shoot flat and fasciated, some shoots with the cockcombs and others without, deep green overall. In: www.iselinursery.com, online catalog 2016-17, accessed 10.5.2016

CHAM010 - *Chamaecyparis nootkatensis* (Pendula Group) 'Golden Waterfall' - highly weeping as the Group, long drooping arm, foliage richly suffused golden-yellow to yellow, showing perhaps 20-35% green, depending on the amount of light given. Appears to be more golden than previous clones of this category. In: <http://www.hachmann.de>, accessed 10.7.2016

CHAM011 - *Chamaecyparis nootkatensis* (Pendula Group) 'Wells Pacific Arrow' ('Pacific Arrow')- habit weeping as the Group but the apex extremely narrow and arrow-shaped, plants of 8-10 ft. perhaps as narrow as 12-18 inches, thought become 20-30 ft. tall x 2-5 ft. wide in many years. It's classic super-narrow, "inverted column" type of weeping in the very extreme formation. Or: Wells Nursery, Mount Vernon, Washington, USA. In, ph: <http://www.progressiveplants.com/catalog.html?material=2568593&desc=Chamaecyparis+nootkatensis+Pendula+Wells+Pacific+Arrow>, accessed 10.7.2016

CHAM012 - *Chamaecyparis pisifera* RAY OF LIGHT™ 'RIKACPMC' - 8-10 ft. tall, compact, "tight mound without pruning", plumose much as Plumosa Group (definitely not a thready of Filifera Group) but apparently less formal and slight irregular. Leaves variable in color during the season, "starting with a ghostly near-white in the center...which warms to yellow before going deep green at the tips....an eye-catching ombre effect", showing various intermediate chartreuse and lime green tones as well. Web: <http://springmeadownursery.com/plant/10820>, accessed 3.12.2017

CHAM013 - *Chamaecyparis obtusa* 'Good as Gold' -- 20-25 ft. tall x 10-12 ft. wide, columnar. Leaves rich golden-yellow, becoming more lime, and finally light species green by the second year. Web, in, or, so: <http://www.hawksridgefarms.com/viewplant.php?id=1345>, accessed 3.13.2017, apparently their own sport of 'Verdonii'

CHAM014 - *Chamaecyparis pisifera* (Squarrosa Group) 'Blue Moon' - globose, very uniform, dwarf, rich deep blue, strong limbs, foliage of the Squarrosa Group (diverent blue leaf) type, Or: Iseli Nursery, Oregon, USA. intro. c. 2015.
Web: <http://www.grootgroenplus.nl/uploads/images/nieuwigheden/2015/Chamaecyparis%20pisifera%20%E2%80%98Blue%20Moon%E2%80%99.pdf>, accessed 5.11.2017

CHAMAED001 - *Chamaedaphne* 'Dew Drop' (Rare Find Nursery) - 1.5 ft. tall x 3 ft. wide at first, potentially 2-3 ft. tall x wide, very dense.

CHIL001 - *Chilopsis linearis* DAZZLEWINE™ 'Lopur' - 25-30 ft. tall (typical?), corolla dark rich burgundy, photos suggest a possibility of dark violet-red also, leaves dark emerald green from whitish, velvety buds. Or: Mountain States Wholesale Nursery, http://www.msw.com/media/info_sheets/chilopsis_linearis_lopur_ppaf_dazzlewinetm.pdf, accessed 5.9.2017, their own selected from the Glendale nursery bef. 2016.

CHIM001 - *Chimonanthus praecox* 'Brookhill Goldleaf' - leaves showy golden-yellow. In: Larch Cottage Nurseries, Cumbria, England to European trade.

CHIM002 - *Chimonanthus praecox* 'Sunburst' - flowers with strong, rich yellow, center with contrasting red, larger than species typical. or, in: Junker Nurseries, UK, their own selection, the name suggested to them by Roy Lancaster

The full taxonomist record from Cultivars of Woody Plants follows. Photographs are available in the original CWP ebooks.

CHIO002 - *Chionanthus retusus* 'Arnold's Pride' (11/5)

ht: 30 ft. tall x 30 ft. wide (original tree)

fq: very floriferous

frq: self-fertile

or: Arnold Arboretum from the famous, very notable example planted 1901, raised from seed

or: collected at Emperor's Imperial Bot. Gard.

CHIO011 - *Chionanthus retusus* 'Botanicas Beauty'

fq: much more floriferous than species typical, blooms covering the entire canopy, also known to bloom well as young plants.

ft: typical petals longer and wider than species typical., also slightly more curved and elegant

web: <http://www.les-botaniques-du-val-douve.com/3673-16-val-douve-c-chionanthus-retusus-botanicas-beauty-plante-a-ecorce-decorative.html>, accessed 10.11.2016

CHIO013 - *Chionanthus retusus* 'Daruma' - lsp: [Dawes Arboretum 2013 in two accessions](#). This is not the *Loropetalum* clone of the same name.

CHIO003 - *Chionanthus retusus* 'China Snow' (11/5)

ht: 10-18 ft. tall and wide, 10 x 10 ft. as young trees

lc: glossy dark green

fq: floriferous

or: Don Shadow selected from notable tree in old Sanford Arboretum, Knoxville, TN USA.

or: Nurseries Caroliniana (online catalog, accessed 11.24.2012) says it is from an old tree

or: at the Arnold Arboretum.

CHIO004 - *Chionanthus retusus* 'Ivory Tower' (3/7)

ht: 15 ft. tall x 3 ft. wide

ha: strictly upright, columnar

ll: 4.0 in.

lc: very glossy green

infl: 2-4 in. panicles

so: www.hawksridgefarms.com (online catalog 2007)

CHIO005 - *Chionanthus retusus* 'Yadkin Creeper' (11/8)

or: presumed to be www.yadkinvalleynursery.com, not listed on website on 11.9.2008

lsp: Raulston Arb #030704 rec. 4/18/2003, 47 " tall in 2005

CHIO006 - *Chionanthus virginicus* 'Emerald Knight' (5/4)

lc: darker green by one report

so: www.highlandcreeknursery.com (online catalog 2003)

CHIO001 - *Chionanthus virginicus* 'Black Stem' (Buchholz)

CHIO007 - *Chionanthus virginicus* 'Groenendaal' (12/6)

ns, id: a clone listed in Europe, a seedling from Groenendaal Arboretum

CHIO008 - *Chionanthus virginicus* 'Floyd'

ha: denser, more upright than species typical

ft: 99% or more male flowers only

frq: virtually no fruit set, only the occasional one has been observed on larger trees

or: Sonnemann Experimental Station Garden, Vandalia IL USA c. 1945 as chance seedling

in, ns: named and introduced by Dr. J.C. McDaniel in honor of Floyd Sonnemann 1970. US trade about 1972-3

li: McDaniel, J.C. 1969. Proc. Int. Plant Prop. Soc. 19: 377-378.

CHIO009 - *Chionanthus virginicus* 'Pat's Variegated' (5/4)

lc: irregularly margined, mottled and sectored light yellow, some

lc: leaves all yellow or all green, very colorful to date

fq: seems to flower well for a variegate.

lsp: Juniper Level Botanic Garden, Raleigh, NC, first observed by me in May 2004.

CHIO012 - *Chionanthus virginicus* [pink flowered]

fc: light pink

or: Dirr in his 1998 Manual relates that "a lady approached me and

or: mentioned she knew of red- and pink-flowered forms. Needless

or: to relate, I had abnormal heart palpitations. Arrangements were made

or: to propagate the forms...to this day I await the first scion."

or: Nicholson's *Arnoldia* article 50(4): 24-31 (1990) mentions a pink form found

or: in Virginia and perhaps other states.

CHIO010 - *Chionanthus virginicus* 'Spring Fleecing' (11/6)

ht: 12-20 ft. tall

ha: small tree, "superior form"

lc: glossy dark green

sex: male

fq: more floriferous

ff: nicely scented

so: www.nicholsgardens.com (online catalog 2006)

CINN001 - *Cinnamomum camphora* 'Yongjin' - HortScience 50: 762-764, an ornamental clone from China.

CINN002 - *Cinnamomum camphora* 'Xiaguang' - HortScience 50: 762-764

CINN003 - *Cinnamomum camphora* 'Yuhuang' - HortScience 50: 762-764

CLAD001 *Cladrastis kentukea* 'White Rain' (Wayside Gardens) - a new weeping clone - by the way there is no "c" in kentukea. It's a Latin thing and folks should know better.

CLET001 - *Clethra barbinervis* 'Great Star' - Bark exfoliating in gray to pinkish-brown. Flowers at a younger age. Flowers in long, scented racemes. Leaves red to yellow in fall.
web: <http://www.panglobalplants.com>, accessed 3.12.2017

CORN001 - *Cornus controversa* GARDEN DANCE™ (Wayside Gardens)

CORN002 - *Cornus sericea* ERIKA THE BLONDE™ (Song Sparrow Nursery, a Klehm original introduction)

CORN003 - *Cornus kousa* 'Empire', 'Pams Mountain Bouquet', and 'Red Steeple' (HortScience) - paid access. Registrations will be split upon receipt of further data.

CORN004 - *Cornus* LITTLE RUBY™ (*C. kousa* 'Miss Satomi' x *C. hongkongensis* 'Summer Passion') - Dr. Ranney's new breakthrough, the first semi-evergreen to evergreen, pink-bracted dogwood.

CORN005 - *Cornus kousa* MANDARIN JEWEL (Brotzman's Nursery) - orange fruit
--end of OROC Data Sharing

CORN006 - *Cornus mas* CLYDESDALE™ (Songsparrow Nursery, a Klehm original)

CORN007 - *Cornus kousa* SCARLET FIRE™ 'Rutpink' - flower bracts uniformly rich pink, holding this color up to 8 weeks, nearly all of the bract heavily pigmented, leaves clean and unmarked, fall colors red, and it is also considered the heaviest flower of all known pinks in this species (2016). Or: Dr. Tom Molnar, Rutgers University.

CORN008 - *Cornus drummondii* LEMON DROPS™ 'KNI-Yellow' - flowers "soft saffron yellow", fruit yellow maturing to burgundy, clean dark leaf. Offered by <http://www.klynnurseries.com>, 2013 Catalog/No Pricing, accessed 2.17.2016, their own introduction from selected seedling

CORN009 - *Cornus kousa* 'Rosy Curlycue' - habit growth rate very slow. Leaves twisted, pink, green, and white at first. In: <http://www.whistlinggardens.ca/05-downloads/141218-whistling-gardens-garden-centre.pdf>, accessed 10.3.2016

CORN010 - *Cornus kousa* 'Primrose Cloak' - leaves bright yellow in new growth, tinged red in light, slightly undulate, twigs pink and showy. Or, in: unknown origin, described and listed in the US and Canada by Broken Arrow, Rocky Dale, Handy, and Whistling Gardens Nurseries as 10.3.2016.

CORN011 - *Cornus kousa* 'China Curl' - habit slower, compact, shrubby at first. Leaves bright light green, narrowly elliptic to linear-elliptic, highly undulate and twisted, apex distinctly curled down and often in a loop. In: http://www.bloomriver.com/home/br2/page_2304_16/cornus_kousa_china_curl.html, accessed 10.3.2016

IN, photo: http://www.davidsansjapanesemaples.com/shop/product/z_cornus_kousa_chinesis_china_curl__, accessed 10.3.2016

Ns: this "unique" plant appears identical to a clone of the species labeled as 'Medusa' some years ago (2005) at the JC Raulston Arboretum and documented in Cultivars of Woody Plants

CORN012 - *Cornus obliqua* RED ROVER™ 'Powell Gardens' - 48-60 in. tall x 48-60 in. side, compact, neat. Leaves rich dark purple shades in fall, later more red. Typical species white flowers and showy blue fruit. Ch: USDA 4. Web: <https://www.provenwinners.com/plants/cornus/red-rover-silky-dogwood-cornus-obliqua>, accessed 10.4.2016, new in 2016 trade in US



CORN013 - *Cornus hongkongensis* subsp. *melanotricha* 'Watashi no Ginga' - habit upright, outward spreading, vigorous. Leaves margined and sectored green, yellowish-green, and yellow. Flowers single to double (4-6, sometimes 8 bract), bracts greenish at first, later white. Pat, or: US Patent #26991 on August 2, 2016 to Masashi Shibamichi, Yuki, Japan as sport of subspecies appearing in Tsukuba City, Japan in 2004. Image above is from US Patent Application under which no copyright has been stated or asserted.

CORN014 - *Cornus mas* BUTTERMILK SKY™ 'Butskyzam' - 15 ft. tall x wide, upright, subglobose, smaller than species on average. Flowers bright gold as species. Leaves broadly margined butter yellow becoming margined cream, chimera 10-25% surface. web, in: <http://www.upshoothort.com/lcn-selection/buttermilk-sky-variegated-dogwood/>, accessed 3.13.2017.

CORN015 - *Cornus officinalis* RED SENTINEL™ 'KLMQQ' - 8-10 ft. tall x 5--8 ft. wide (10 years), "matures to a a small...upright columnar tree", hence more erect than average seedling we suppose, flowers numerous, clustered, cover all limbs fully, leaves more healthy and dark green with a semi-gloss, red to purple in fall in a reliable way. Or, web: <http://www.songsparrow.com/catalog/plantdetails.cfm?ID=5042&type=WOODY,&pagetype=plantdetails>, accessed 5.9.2017

CORN016 - *Cornus officinalis* RUGGED CHARM™ 'KLMII' - 8-10 ft. tall x wide (10 years), flowers very numerous, covering all limbs, superior red to purple fall color, good dark glossy green leaf. Or, Web: <http://www.songsparrow.com/catalog/plantdetails.cfm?ID=5033&type=WOODY,&pagetype=plantdetails>, accessed 5.9.2017

CORN017 - *Cornus alba* BRUSHED BURGUNDY™ 'CHOVZAM' - leaves margined cream to yellow, new growth richly toned in red to burgundy shades, making a bright tricolor. Or: Lake County Nursery.

CORN018 - *Cornus alba* CHERRY VODKA™ - 5 ft. tall x 4 ft. wide, stems bright red all winter, upright-rounded, leaves textured, rugose along the major veins, rich green, margined white to cream, chimera width irregular, about 8-12% surface, fall color tinged strong pink to red, creating a tricolor effect as soon as August, fruit "snow white". Or: Lake County Nursery, <http://www.lakecountynursery.com/lcns%20sell%20sheets/CherryVodka.pdf>, accessed 5.10.2017

CORN019 - *Cornus alba* NEON BURST™ 'Byboughen' - 4-5 ft. tall, compact, upright-globose, parent 'Morden Amber' is 40% larger, twigs rich red, showy, "early in the season", leaves bright chartreuse, very showy color, good heat and sun tolerance, keeping this color all summer without scorching, new tips tinged bronze, fall colors a mix of yellow, orange, red, and purple. Pat, or: US# 27956 on May 2, 2017 to Ron Boughen, Valley River, CA, as sport of 'Morden Amber' 2009, assigned Bylands Nursery, West Kelowna, British Columbia. Web: https://www.baileynurseries.com/media/wysiwyg/bn/our-brands/firsteditions/marketing/brochures/downloads/FE-New_Varieties_2017.pdf, accessed 5.10.2017

CORN020 - *Cornus kousa* 'Re Tivano' - Leaves irregularly margined cream to yellow, chimera irregular and about 5-10% surface, margins nicely undulate and surface rugose, giving added appearance, bracts typical white. Or: Vivai Nord, Italy, intro. 2015 Web: <http://www.grootgroenplus.nl/uploads/images/nieuwigheden/2015/Cornus%20kousa%20%E2%80%99Re%20Tivano%E2%80%99.pdf>, accessed 5.11.2017

PENDING - Cornus GOLDEN STRAWBERRY MARTINI™ - listed name with Ball Ornamentals, data pending

PENDING - Cornus LEMON LIME FLARE™ - listed name with Ball Ornamentals, data pending

CORY001 - Corylus 'Burgundy Lace' - 35 ft. tall growth rate moderate, tree form best is basal suckers removed, leaves dark reddish-purple at first, deeply incised (unlike most or all other purple-leaved clones), narrower blade, Resistant to *Anisogramma anomala* fungus due to parent clone 'Gasaway' Web with color photo: <http://icoregon.technologypublisher.com/technology/21725>, accessed 5.11.2017, US PP applied for on March 23, 2017 by Shawn Mehlenbacher, David Smith, and Rebecca McCluskey of Oregon State University, a cross of several clones including *C. avellana* f. *heterophylla* 'Cutleaf' and the likely pollen parent 'Rode Zeller' in 1998.

COTI001 - Cotinus coggygria 'Kanari' - fall colors reliably golden-yellow, showy. Flower plumes pale, nearly white. In, ph: <http://www.hkolster.nl/home-nl/+fotobestanden/+cotinuscoggygriakanari.htm>, accessed 10.11.2016

COTI002 - Cotinus coggygria WINECRAFT BLACK™ 'NCCO1' - 4-6 ft. tall x wide, subglobose, compact, smaller than most rich purple clones. Leaves at first rich purple, later more dark, blackish-purple, not fading as older cultivars, remaining dark purple until fall. , orange, yellow, and red tones in fall. Flower panicles wispy, rich pinkish-red, later a hazy-violet. web, so, in: <http://springmeadownursery.com/plant/19890>, accessed 3.10/2017

CRAT001 - Crataegus succulenta 'Gregory Canyon' - 3-4m, large shrub to small tree, Flowers, fruit very abundant. Or: named from a particularly good population in Gregory Canyon near Boulder, Colorado, USA. Not all stock seems to be as showy.

CRYP001 - Cryptomeria japonica 'Dinger' - 4 ft. tall x 3 ft. wide, compact, subglobose overall but like a medusa-head of many narrowly ramified limbs, being a witches broom from 'Araucarioides', irregularly and slightly twisted cord-like shoots, others more stable and bottle-brush like. Or: Japan. In: www.iselinursery.com, online 2016-17 catalog, accessed 10.5.2016

DAPH001 - *Daphne x houtteana* 'February Plum' (Monrovia) - 2-3 ft. tall x wide, subglobose, slow in growth. Leaves at first rich green, later very purple to blackish-green, sometimes near true black, species is called "Black-leaved Daphne", improved for darkness of leaf color. Flowers purplish-pink, a plum shade. USDA 6 HARDINESS, semi-evergreen in many climates. Web: <http://www.monrovia.com/plant-catalog/plants/2919/february-plum-daphne/>

DAPH002 - *Daphne odora* 'Maejima' (Wayside Gardens) - 3-4 ft. tall x wide, globose. Leaves broadly margined cream to light yellow, a wider margin than traditional marginate cultivar of this species, sometimes up to 25-35% of blade surface. Web: <http://www.monrovia.com/plant-catalog/plants/4479/maejima-variegated-winter-daphne/>

DAPH003 - *Daphne bholua* 'Cobhay Debut' (1/2017)

fc: corolla slight paler pink than species typical

lc: rich glossy green

ld: more evergreen tendencies

or: www.junker.co.uk, accessed 1.8.2017, their own selection, from seed collected by Sir Peter Smithers in Daman Ridge, Nepals, 1970

DAPH004 - *Daphne bholua* 'Cobhay Snow' (1/2017)

or: www.junker.co.uk, accessed 1.8.2017, their own selection, not described, presumably white-flowered(?)

DAPH005 - *Daphne bholua* 'Lympsfield' (1/2017)

in: Roy Lancaster

so: www.junker.co.uk, accessed 1.8.2017, not described

DAPH006 - *Daphne odora* 'Ripple' (1/2017)

lc: glossy dark green, margined cream at 8-20% of surface, most wide towards the apex, though quite variable

lm: undulate unlike most other white to cream-edged clones

or, in: Sam Allen, Clayton, North Carolina.

lsp: Raulston Arboretum #150003, received 1.13.2015

DAPH007 - *Daphne odora* 'Shinano Nishiki' (1/2017)

lc: from JCRA image (website accessed 1.8.2017) very variable chimera, gold-centered at 50-90% surface,

lc: some blades more marginal or half gold. The Japanese website <http://global.rakuten.com/en/store/chigusa/item/10019130/>, accessed

lc: 1.8.2017 shows a yellowish-cream margin of 15-25% surface, silvery green center, though up to 80% on some blades,

lc: not nearly as gold as the JCRA photo (though admittedly a very tiny plant). See also the image here: <http://cocaz.exblog.jp/i61/>

lc: and http://pds.exblog.jp/pds/1/201503/01/23/b0160123_12353274.jpg (Atelier Botanique, accessed 1.8.2017).

lc: which suggests a greenish-gold submargin (green thin edge outside the gold margin), chimera easily 50% of the surface.

lsp: Raulston Arboretum #110734, received 3.27.2011. Additional history and images are welcome.

DAPH008 - *Daphne odora* 'Wild Winter' (1/2017)

lsp: Raulston Arboretum #160025, received 1.25.2016, not described

DAPH009 - *Daphne wolongensis* 'Guardman' (1/2017)

ha: more erect, hence a guard-like pose

ld: evergreen

lc: dark green

fc: rich pink

so: www.junker.co.uk, accessed 1.8.2017



DAPNI001 - *Daphniphyllum teijsmannii* 'Mountain Dove', a ghostly marginated and sectored sport with contrasty violet-red petioles. Click image to enlarge. Image above is not part of OROC Data Sharing and must not be used.

DAVI001 - *Davidia involucrata* 'Aya Nishiki' (5/6)

lc: wide creamy–white margins becoming mottled bluish–green,

lc: white, and green. On the Buchholz website the margins are rich yellow, some are submarginal with banding.

or, pat: Akira Shibamichi, Japan, as seedling, US Patent applied for 5/11/2006

so, ph: http://www.buchholznursery.com/plant_page.html?id=26c354

DAVI002 – *Davidia involucrata* 'China Compact' (2/10)

ha: smaller, more compact

so, in: <http://www.buchholznursery.com> (online catalog Feb. 14, 2010)

REGISTRATION PENDING NEW NAME – *Davidia involucrata* 'Columnaris' invalid post–1959 Latin name (6/7)

ha: upright

ns: requires a new, valid vernacular name if proven of interest.

so: www.bloomrive.com (online catalog 2007)

DAVI003 – *Davidia involucrata* 'Crimson Spring' (6/7)

lc: burgundy-red new growth, later more bronze-red, then more green

so: www.bigdipperfarm.com (online catalog 2007)

so: www.greergardens.com (online catalog 2007)

DAVI012 – *Davidia involucrata* 'Iseli Fastigate' (10/2013)

ha: narrowly erect.

or: Iseli Nursery, Oregon, introduced 2013, from a distinct narrow seedling



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DAVI013 – *Davidia involucreta* 'Lady Dahlia' – leaves irregularly centered yellowish-green to chartreuse aka "gold", marginal serrate tips reddish in sun, chimera about 20–55% of surface, very irregularly in terms of multi-branched sectors or a very open "tree" of paler tissue. Imaged at the Raulston Arboretum (April 2016). It is sold by Buchholz and Broken Arrow nurseries in the US this spring of 2016 as well as Esveld.nl in Europe. It should not be confused

with 'Lady Sunshine' with a massively, truly yellow to creamy-yellow. If our math holds here, we now have a shocking seven cultivars of variegated Davidia and still not one that blooms from young, tiny trees! You get what can get, I suppose.

DAVI014 – Davidia involucrata 'Lady Sunshine'

lc: broadly and irregularly margined yellow, chimera about 25–45% surface, very large and wide, fading more to cream edges, the

lc: center more of an irregularly grayish-green and green sectored "tree" shape with maturity. New growth is very bright.

lc: This is a classic gold marginate sport and not like 'Aya Nishiki' which often shows submarginal banding of 2–3 colors.

lc: The blade has some texturing, rugosity or minute puckering which adds curious and lovely shadows.

Or: Crispin Silva, Oregon, USA

In, so: <http://www.bluebellnursery.com/catalogue/trees/Davidia/D/8733928>, accessed 10.12.2016

Ph: <http://florawonder.blogspot.com/2013/08/favorite-chinese-species.html>

DAVI004 – Davidia involucrata 'Kylees Columnar' (2/10)

ht: 10 ft. tall x 2 ft. wide (10 years)

ha: columnar, pillar-like

so, in: <http://www.buchholz-nursery.com> (online catalog Feb. 14, 2010)

DAVI005 – Davidia involucrata 'Platt's Variegated' (2/5)

lc: variably mottled and sectored white

or: Platt Garden, Portland OR USA as seedling

so: [Collectors Nursery](#) (online catalog 2005)

DAVI006 – Davidia involucrata 'Purpleleaf' (5/6) provisional name

lc: dark burgundy to purple new growth (RHS 79A,B becoming 79B with 136C)

or, pat: Akira Shibamichi, Japan, as seedling, US Patent applied for 5/11/2006

ns: simple descriptive cultivar names such as "purpleleaf" are not allowed under

ns: the modern code. This clone needs a new name.

DAVI007 – Davidia involucrata 'Shibamachi Variegated' (2/10)

lc: broadly margined yellow (to 35%), red tinged edge in fall

so, in: <http://www.buchholz-nursery.com> (online catalog Feb. 14, 2010)

DAVI008 – Davidia involucrata 'Sonoma' ('Sonoma Clone')

ht: 30–40 ft. tall x 25–30 ft. wide (as species?)

fq: more floriferous than species typical

fd: white bracts to 10 in. long – some species variants are 8 in. at the most

ns: probably belongs to var. *vilmoriniana* which is more common in gardens.

or: Sonoma Hort. Nursery before 1984

DAVI009 – *Davidia involucrata* 'Sumako' (2/10)

so, in: <http://www.buchholznursery.com> (online catalog Feb. 14, 2010, name only, not described)

DAVI010 – *Davidia involucrata* 'Variegata' post-1959 illegit. name (2/2010)

lc: mottled and sectored (20–50%) in bright golden–yellow

so, in: <http://www.buchholznursery.com> (online catalog Feb. 14, 2010)

DAVI011 – *Davidia involucrata* 'White Dust' (2/2010)

lc: subtly spotted white and pale green (30–60%), no bold sectors

lc: or zones

so, in: <http://www.buchholznursery.com> (online catalog Feb. 14, 2010)

DEUT001 *Deutzia hookeriana* 'Carolyn Hardy' (RHS, Nomenclatural Standard, JSTOR)

DEUT002 - *Deutzia* YUKI SNOWFLAKE™ 'NCDX1' - Or: US PPAF, Dr. Thomas Ranney

DEUT003 - *Deutzia* YUKI CHERRY BLOSSOM™ 'NCDX2' - 24cm tall (3 years per US PPAF), expected to be 2 ft. tall x 3 ft. wide in general landscape use, low-growing, arching-spreading, flowers white striped in pink, abundant, leaves tinged bronze-purple in fall. Or: US PPAF to Dr. Thomas Ranney, Raleigh, North Carolina on 1.28.2016 as cross of *D. gracilis* 'Nikko' x *D. x rosea* 'Carminea'. Appears to be the first very low, groundcover-sized cultivar with pink flowers. Web: <http://www.ces.ncsu.edu/fletcher/mcilab/introductions/yuki-cherry-blossom-deutzia.html>

DEUT004 - *Deutzia* 'Iris Alford' - web: <http://www.panglobalplants.com>, accessed 3.12.2017

DEUT005 - *Deutzia* 'Dark Eyes' - web: <http://www.panglobalplants.com>, accessed 3.12.2017

DEUT006 - *Deutzia calycosa* 'Dali' - web: <http://www.panglobalplants.com>, accessed 3.12.2017

DEUT007 - *Deutzia setchuenensis* var. *corymbiflora* 'Kiftsgate' - web: <http://www.panglobalplants.com>, accessed 3.12.2017

DIER001 - *Diervilla lonicera* EARLY BURGUNDY™ 'Gre Earl Bur' - 3-5 ft. tall x wide. Leaves dark burgundy red in new growth, becoming dark green. Flowers apparently typical. Web: www.gardendebut.com, accessed 5.22.2016, https://issuu.com/gardendebut/docs/2016_catalog-online/1

DIER002 - *Diervilla splendens* DIVA™ 'El Madrigal' - Leaves rich dark burgundy red to purplish-red, this dark color all summer, highly textured at times, giving much contrast to yellow flowers, even a richer red in fall. Pat: European PBR. In, ph: <http://www.newplants.nl/en/planten/d/diervilla-splendens-el-madrigal/>. accessed 10.4.2016

Diervilla rivularis KODIAK® Series (1/2017)
cultivars:

- DIER003 - KODIAK® BLACK 'SMNDRSF' - 3-4 ft. tall x 4-5 ft. wide, leaves glossy dark purple to dark burgundy-black, more intense in spring and summer.
- DIER004 - KODIAK® ORANGE 'G2X88544' - 3-4 ft. tall x 4-5 ft. wide, leaves rich dark orange to reddish-orange at first, more green later
- DIER005 - KODIAK® RED 'G2x885411' - 3-4 ft. tall x 4-5 ft. wide, leaves rich red in spring, becoming green margined and tinged red, new growth all summer remains red, red fall color

in: Spring Meadow Nursery and Proven Winners, c. 2013

PENDING - *Diervilla splendens* FIREFLY™ NIGHTGLOW™ - Web, in: <https://bloomineasyplants.com/plants/firefly-nightglow/>, accessed 3.13.2017. Ns: the NIGHTGLOW™ name has also been used for 'El Magrigal'. It remains unclear if these are all the same taxon or if three different trademark names (adding DIVA) are being employed in various combinations.

DIOS001- *Diospyros virginiana* MAGIC FOUNTAIN™ 'JN5' (Pleasant Run Nursery) - 10-12 ft. tall 5-10 ft. wide, distinctly weeping, inverted or columnar type weeper as young plants, apparently wider with age. Fruits present, female clone, maturing to yellow, edible after frost. Leaves red to yellow in fall, potentially semi-showy. Selected by Ray Jackson, Tennessee, USA.

DIOS002 - Diospyros kaki 'Shibamichi Weeping' - moderately to broadly weeping, a classic weeping, upper branches hooked and arching much as Fagus sylvatica 'Pendula', Fruit medium orange, a female clone. Selected by Akira Shibamichi, Japan, reported in the US c. 2014. It is readily distinct from MAGIC FOUNTAIN™ of another species by its wider, more open form, and much larger, more orange fruit. Web: <https://jcraultstonarboretum.wordpress.com/>

DISE001 - Diselma archeri 'Read Dwarf' -1 ft. tall x 2 ft. wide, groundcover conifer. Leaves rich green. USDA 8. Suitable where hardy like any dwarf Chamaecyparis or Juniperus clone. Or, in: Iseli Nursery, www.iselinursery.com, accessed 5.22.2016

DIST001 - Distylium CINNAMON GIRL™ 'PIIDIST-V' - 2-3 ft. tall x 2-4 ft. wide, mounded, somewhat decumbent, "a more refined look than other Distylium on the market" (originator). Leaves small, fine-textured, showy plum purple in new growth, maturing to bluish-green. USDA 7, survived 4-6 deg. F. in above ground container without injury. Or: www.plantintroductions.com, selected 2013-14. accessed 6.15.2016, see <http://www.plantintroductions.com/cinnamongirl8482distylium.html>

DIST002 - Distylium LINEBACKER™ - <http://www.plantintroductions.com/linebacker8482distylium.html>

DIST003 - Distylium 'Athens Tower' - 6-6 ft. tall x 4-5 ft. wide, upright to vase-shaped. Leaves dark green, very obtuse, thick. web, photo: <http://www.hawksridgefarms.com/viewplant.php?id=1795>, accessed 3.13.2017

DIST004 - Distylium SWING LOW™ 'PIIDIST-VI' - 2-3 ft. tall x 4-6 ft. wide, low, dense, prostrate, horizontally branched, more compact and low than CINNAMON GIRL in Bailey Nurseries trials, leaves bluish-green. Or, web: Plant Introductions Inc. selected in 2016 after one of the hottest summers in Georgia, USA on record. https://www.baileynurseries.com/media/wysiwyg/bn/our-brands/firsteditions/marketing/brochures/downloads/FE-New_Varieties_2017.pdf, accessed 5.10/2017

ELAE001 - Elaeagnus x ebbingei OLIVE MARTINI™ 'Viveleg' (Star Roses and Plants) - 10-15 ft. tall x wide, apparently typical species vigor, upright, dense, more upright and stronger in trials than 'Gilt Edge'. Leaves very dark olive green (base color darker than 'Gilt Edge'), margined light yellow at 10-20% surface, more stable chimera than 'Gilt Edge'. US Plant Patent #20177 on July 7, 2009 to Christian Vivies, France as sport appearing in Toulouse, France.

ELAE002 - Elaeagnus x ebbingei MARYLINE® 'Abrela' - leaves centered light yellow to 90% or more of surface, this chimera becoming dark yellow as leaf ages, uniform coloration and one of the most chimera-rich clones known in the genus. Or: Albert Breneliere.

ELAE003 - Elaeagnus umbellatus 'Sweet n' Tart' - vigorous, deciduous. Flowers numerous, white, scented. Fruit red, flavorful, tart, sweet as the name implies. web: <http://www.panglobalplants.com>, accessed 3.12.2017

ECARP001 - Elaeocarpus decipiens LITTLE EMPEROR® 'MonProud' - 6-8 ft. tall and wide, likely 10 ft. tall x wide with some age, compact, narrowly pyramidal to columnar, slower growth rate, shorter internodes than typical. Leaves elliptic, undulate, slightly twisting, 8.4cm long x 2.3 cm wide (smaller than either parent), venation more pronounced than species typical or either parent, bronze-colored at first, later glossy, dark green, some older leaves red before they drop. Ch: USDA 8. Pat, Or: US# 17611 on April 17, 2007 to Andrew Scott Proud, Glendora, California USA as cross of two unnamed selections 2001.

ENKI001 - Enkianthus campanulatus 'Lipstick' (Rare Find Nursery) - flower corolla white, about 20-25% surface at the apex bright hot pink, not blushed but strongly marked, contrasting much. Rare Find Nursery selection.

ENKI002 - Enkianthus campanulatus 'Bruce Briggs' - flower corolla nearly 100% bright pinkish-red red, only the small green calyx giving contrast. Selected Weston Nurseries, Mass., USA by Chris Rogers, Propagator, 1980's, only recently in the the US trade under this name, c. 2015, sometimes called "Weston red seedling" or similar before. Westonnurseries.com, accessed 5.5.2015 does not mention it but shows 'Red Velvet' which we believe to have slightly pink tips over a mostly red corolla and not the same clone. Said to be named for the founder of Briggs Nursery, Washington, USA who list it.

EUCA001 - Eucalyptus gunnii FRANCE BLEU® (Sapho.fr) - one of the frosty blue clones ever.

EUCA002 - Eucalyptus gunnii AZURA® 'Cagire' - 4m (10 years) where cold hardy, habit neater, more compact, branching more ornamental, and yet more vigorous than random seedlings. Leaves rich azure blue, appearing quite silvery-glaucous in bright light, darker in shade. More cold hardy in French trials, proven one of the most cold tolerant clones in this species, handling up to -18 to -20 Deg. C. in France. It survived when other seedlings died. Roots in high percentages, even from coppiced shoots. Eur PBR to Afocel, France. It should be regarded as one of the most cold hardy and proven ornamental clones in the genus today (May 2015).



EUCA003 - Eucalyptus cladocalyx VINTAGE RED™ 'EUC78' - 6-8 m tall x 3-4 m wide as small tree, can be trimmed lower as shrub or hedge at 2-4 m tall. Stems dark red to blackish-red, maturing to purple and grey tones, bark smooth, grey, exfoliating with age. Leaves bright red at first, almost a coral-red shade, becoming rich dark burgundy and effectively a dark purple from the distance as seen in the above image. It is the first red-leaved clone in this genus in terms of the entire canopy color (not just red tips) and this dark color persisting all year. Dr: high myrtle rust resistance. Photo above courtesy of and copyright owned by Oxbreed Nursery, In: <http://ozbreed.com.au/advanced-trees/vintage-red-eucalyptus-is-a-landscape-tree-with-red-foliage-advanced-trees-range/>, accessed 8.10/2016, grown on "elite understock" from CSIRO which improved on earlier trials where the top might outgrow the understock. If I did not know better I'd guess this was a new beech, *Fagus sylvatica* 'Rotundifolia Purpurea'.

EUON001 - Euonymus fortunei DAN'S DELIGHT 'Dandel' - 40cm tall x 60cm wide, compact, dense. Leaves very dark green, margined white to 50-90% or surface, on older mature leaves this white is very clean, bright, not creamy nor muddled in gray tones, one of the most white intense clones reported (May 2015), new tips a bit more yellow to cream in the chimera. Holds color all year where hardy. Selected by Dan Barnet, England, Eur PBR #2014-0121, intro. 2013

EUON002 - Euonymus alata 'Russell Milstead' (Song Sparrow Nursery, Klehm) - 3-5 ft. tall x wide (5 years), dense, subglobose. Leaves a very intense, bright ruby red in fall. USDA 4 hardiness.

EUON003 - Euonymus fortunei WHITE ALBUM™ 'Alban' - low, dense mound, better form than similar 'Emerald Gaiety'. Leafspot resistant. Leaves with very wide white to light cream margins. Springmeadownursery.com, accessed April 2013.

EUON004 - Euonymus alatus 'Firecloud' - 4-5 ft. tall, smaller than species typical. leaves dark green, "evenly splashed with cream". www.cistus.com, accessed 3.29.2016, named by them

EUON005 - Euonymus japonicus 'Yellow Pansy' - 1.5m tall (10 years). Leaves in spring bright "pansy yellow", later more typical green. In: <http://www.hkolster.nl/nieuw/sortimentslijst-uk.html>, accessed 10.11.2016

EUON006 - Euonymus planipes 'Gold Ore' - leaves mottled and selected gold to yellow, chimera up to 50% coverage. In: <http://www.hkolster.nl/nieuw/sortimentslijst-uk.html>, accessed 10.11.2016, best image at: <http://www.hkolster.nl/home-nl/+fotobestanden/+euonymusplanipesgoldore2.htm>

EUON007 - Euonymus japonicus EL DORADO™ 'BR2012' - 60cm x 25cm wide. Leaves larger, bright yellow, remaining so most of the year.

EUON008 - Euonymus grandiflorus (carnosus) RUBY WINE® - 1.5-2.5m tall x 1-2m wide. Leaves very showy dark wine red in fall. Fruit showy as the species. Or: Minier Nurseries, France, 2014.

EUON009 - *Euonymus alatus* UNFORGETTABLE FIRE™ 'Hayman' (1/2017)
ht: 5-7 ft. tall x wide, tallish but very compact, dense, finely branched
ll: smaller than species typical
lc: very rich reddish-magenta to bright red shades in fall, reliably and uniformly so
or: Michael Hayman, Louisville, Kentucky USA
pat: US#21634, CBR# 4389
in: Spring Meadow Nursery

EUON010 - *Euonymus fortunei* 'Horts Blaze' (1/2017)
ht: 25cm at first, 50-100cm x 150cm or more (10 years)
ha: mat-forming, very strong
lc: rich green most of the year, reddish-brown in winter
ls: narrowly ovate to elliptic-ovate
lm: minutely serrate to finely subcrenate.
in: Europe bef. 2015
ph: <http://bodembedekkerstegenonkruid.nl/bodembedekkers/kardinaalshoed/>, accessed 1.11.2017, showing winter coloration

EUON011 - *Euonymus fortunei* 'Prince John' (1/2017)
lc: broadly margined creamy-yellow to cream, chimera easily 25-40% of surface.

EUON012- *Euonymus fortunei* SILVER CARPET® 'Hein's Silver' (1/2017)
ht: 15-20cm tall x wider
ha: prostrate to procumbent, carpet-like, said to be slow and compact, restrained even, suitable for containers
lc: broadly margined cream to silvery-white, chimera 15-40% surface, variably so, midrib often this same chimeral color
or, in: Competition Plant Products 2009 by Roman Bodnar, apparently selected by Sneijers Boomkwekerij

EUON013 - *Euonymus japonicus* GREEN MILLENIUM® 'Minmil' (1/2017)
ha: erect, intended as a strong hedge
lc: bright green
pat: Eur. PBR

Rejected - *Euonymus japonicus* GREEN ROCKET - a synonym of the Japanese clone 'Bekomasaki' and like 'Green Spire' a rename of it

EUON014 - *Euonymus japonicus* GOLDMINE SENSE™ 'Charles' (1/2017)
st: palish, lime green, showy
lc: new tips bright gold for up to 20 leaves, becoming green with a thin lime margin
Or: Asra Plant, Belgium, introduced at Plantarium in 2015
web: <http://senseofnature.nl/planten/euonymus-jap-goldmine-sense>, accessed 1.14.2017



'Microphyllus Variegatus' at the Raulston Arboretum, not labeled 'Edward King' but being a likely post-1959 Latin name the rename is justified. The name appears in the RHS Horticultural Database, accessed 1.14.2017 but we do not yet know if they originated this vernacular correction or not.

EUON015 - *Euonymus japonicus* Microphyllus Group 'Edward King' ('Microphyllus Variegatus' in part)

ls, ll: smaller more elliptic blade as the Group

lc: thinly margined cream, later more of a cleaner white edge, chimera 2-7% surface, bright green center

EUON016 - *Euonymus japonicus* 'Carnival Candle' <http://www.botanyplants.co.uk/wp-content/uploads/2012/09/Shrub.pdf>, 2002

lc: golden tips in February ("carnival time"), more or all green later

or: Botanyplants.co.uk, their own selection, prior to the 2002 catalog listing

EUON017 - *Euonymus japonicus* 'Chedju' (1/2017) - lc: margins cream on green, center of blade a mix of green, gray and cream shades.

EUON018 - *Euonymus japonicus* 'Huayuanfa' - small, evergreen tree, dark green above, light green below, green all winter without defoliation. Fruits bright red, showy. More cold resistant. Or: Beijing Acad. Agr. For., China. web: http://en.cnki.com.cn/Article_en/CJFDTotat-LYKE201604019.htm, accessed 5.1.2017

EXOC001 - *Exochorda racemosa* 'Snow Mountain' - 5-6 ft. tall x 5-6 ft. wide, globose. Flowers 3-4cm wide, 5cm deep, very abundant, blooming from the bottom to the top of the plant, giving a more enduring, impressive show. Propagated easily with softwood stem cuttings unlike 'The Bride' which is somewhat difficult. USDA 4 hardy. US Plant Patent #25473 on May 28, 2015 to Herman Geers, Netherlands, a controlled cross 1994, selected in 1997 as the best seedling. Marketed in US by Blooming Easy, PPAF. 'The Pearl' has larger flowers but is much taller.

EXOC002 - *Exochorda* SNOW DAY® SURPRISE 'Niagara' - 36-48 in. tall x wide, a true dwarf, upright-mounded to loose spreading, yet compact. Flowers 3.3cm wide, inflor. to 5.2cm long, very abundant, mostly in large terminal racemes. Roots well from cuttings. US Plant Patent # 21665 to Herman Geers, cross of *E. macrantha* 'The Bride' and unnamed *E. racemosa* in 1994 assigned to Spring Meadow Nursery, widely sold by Proven Winners in 2015.



FAGU001 *Fagus grandifolia* 'White Lightning' (Mark Weathington, HortScience) - paid access to official cultivar release. The original data is from JC Raulston Arboretum website of their new, dwarf and weeping cultivar of the native, American beech species: <http://jcra.ncsu.edu/horticulture/our-plants/results-by-name-serial-number.php?serial=120165>

Ph: Image above copyright owned by and courtesy of Laurence C. Hatch, imaged at the JC Raulston Arboretum.

FAGU002 - *Fagus grandifolia* DIAMONDBACK™ (Ferncliff Cemetery). Legacy cultivar. Previously published in Cultivars of Woody Plants

FAGU003 - *Fagus sylvatica* 'Callista' - as 'Dawyckii' but slower, much denser, semi-dwarf, 2m tall in 10 years. Leaves typical green. hgeersnl, accessed 5.26.2015

FAGU004 - *Fagus sylvatica* 'Eugen' - a semi-dwarf form, often more spreading than typical species, thus may be wider than tall. Leaves with a distinct obtuse, more rounded apex. It is sometimes referred to as 'Fruticosa Eugen' (sophora.pl, accessed 5.31.2015) , in connection with a post-1959 Latin cultivar name for shrubby, dwarf forms called 'Fruticosa' (fruticose=shrubby in Latin). Thought to be of Czech origin.

FAGU005 - *Fagus sylvatica* 'Londal Kribbekuk' - very low contorted-weeping to spreading mound if grafted low, otherwise like a mix of 'Pendula' and 'Tortuosa' if grafted higher, a "cascading carpet" by one account.

FAGU006 - *Fagus sylvatica* 'Sandrode' - sport of the linear-bladed 'Mercedes', also semi-dwarf, dense, compact, can be upright to ovoid, but blades saw-toothed or boldly dentate, more like true 'Laciniata' than 'Asplendifolia' (ie. shallower incisions, symmetrical blade), also more undulate than 'Laciniata'. The name translate to "red sand", possibly because of the red to sandy yellow fall colors?FAGU

FAGU007 - *Fagus sylvatica* 'Tur' - leaves very large to 11cm long, richly textured (sunken veins), very dark purple, more so than either 'Spaethiana'. Hulsdonk.com, accessed 5.31.2015

FAGU008 - *Fagus sylvatica* 'Goldzack' - leaves golden-yellow becoming green by summer.

FAGU009 - *Fagus grandifolia* 'Umbrella' - canopy shaped as the name implies, mounded, mushroom-like, irregularly branched. Should be compared to 'White Lightning' which appears to have very similar habit traits. In: <http://www.coniferkingdom.com>, accessed 10.12.2016

FARG001 - *Fargesia murielae* 'Elias' - 50-60cm tall x 100cm wide, compact, slower, not invasive, mounded with age. Or: Frank Schnuper.

FARG002 - *Fargesia* 'Obelisk' (*F. nitida* x *F. murielae*) - clump distinctly erect, columnar at first, compact, dense, not invasive. Ch: hardy to -25 deg. C. Or: Han Verweih, Het

Grassnerf, intro. about 2014.

In, ph: <http://www.breederplants.nl/en/portfolio/shrubs/item/159-fargesia-obelisk-pbr>, accessed 10.15.2016

FATS001 – *Fatsia japonica* 'Spilt Milk' – glossy green, margined and splashed cream to white. Cistus.com, accessed 4.22.2015, their own selection

FATS002 – *Fatsia polycarpa* 'Needham's Lace' – 10 ft. tall or larger. Leaves suffused silver over green, major veins much whiter. Edward Needham selection.

FICU001 - *Ficus afganistanica* 'Silver Lyre' - 20 ft. tall x 10 ft. where fully cold hardy, very vigorous. Leaves deeply lobed, incised, "snowflake-shaped", silvery silvery-green to light silver (much greener in species typical). USDA 7b. Sean Hogan (cistus.com), accessed 4.22.2015. This species is cold hardy in 7b and higher with distinctly incised and showy blades not unlike a cut-leaved mulberry or *Ficus carica* but usually smaller and quite artistic and showy as such.

FICU002 - *Ficus afganistanica* 'Green Filigree' - 15-20 ft. tall, similar to species. Leaves "intricately lobed, filigreed...deep green". Or, in: www.cistus.com, accessed 3.29.2016-www.cistus.com, their own introduction

FICU003 - *Ficus afganistanica* 'Dwarf Green Filigree' - 3 ft. tall in many years, smaller than species and 'Green Filigree'. Leaves finely incised, filigreed, lacy. Or, in: www.cistus.com, accessed 3.29.2016, their own introduction.

FICU004 - *Ficus carica* MISS LITTLE FIGGY™ 'MAJOAM' - 4-6 ft. tall x 3-4 ft. wide, dwarf to semi-dwarf. Leaves bluish-green, deeply lobed. Fruit dark purple. Ornamental-edible niche. <http://www.gardendebut.com/plant/Little-Miss-Figgy-Dwarf-Fig>, accessed 9.20.2016

FICUS005 - *Ficus palmata* subsp. *virgata* 'Icebox' - 12 ft. tall x 18 ft. wide, stems hairy, semi-showy. Leaves very broadly ovate to suborbicular, dark bluish-green to dusky green, tropical in effect. Ch: USDA 7b, having survived 7 deg. F. without protection. Or, so: <https://www.plantdelights.com/collections/ficus/products/ficus-palmata-icebox>, accessed 5.1.2017, their selection from seed collected by Chris Chadwell at 6900 ft. in Kumaon, India, this selection not dying back in USDA 7b as species typical.

FORS001 - *Forsythia x intermedia* MAGICAL® GOLD 'Kolgold' (Monrovia) - 3-5 ft. tall x 3-4 ft. wide. Flowers extra large, floriferous, covering nearly every stem of new and old wood, one of a few that bloom from both. Therefore useful as a long cut flowering spray. Leaves a rich green. Bred by Peter Kolster.

FORS002 - *Forsythia x intermedia* 'Nimbus' (Minier Nurseries) - compact (more so than parent 'Courtijau'), upright to outwardly spreading, vigorous (more than parent 'Courtijau'), freely branched, dense. Flowers numerous, longer blooming and also earlier than parent 'Courtijau'. *Phytophthora* resistant. US Plant Patent #23838 on August 20, 2013 to Patrick Pineau, cross of 'Courtijau' x unknown male clone, 2004, selected 2006, assigned to Pepinieres Minier.

FOTH001 - *Fothergilla gardenii* 'Bill's True Dwarf' (Rare Find Nursery)

FRAN001 - *Franklinia alatamaha* 'Ben's Best' (Rare Find Nursery) - "a particularly vigorous form" (RFN, website, accessed 10.2.2016). Or: Hank Schannen

FRAX001 - *Fraxinus pennsylvanica* TROJAN™ 'Durcd' - upright-pyramidal, compact. Very cold hardy. Male, seedless. Or: Rick Durand, Winkler, Manitoba, Canada. Web: <http://www.advancenursery.ca/new-exclusive.htm>, accessed 1.2.2017

FRAX002 - *Fraxinus americana* NOBILITY® 'Jefwis' - 50 ft. tall x 30 ft. wide, upright-pyramidal, good vigor, bark resistant to frost cracking, a concern in very cold regions, "hardening off" earlier in the fall than any other clone of the species, a true advantage in cold areas. Leaves dark green, reliably showy and early dark purple fall color. Male, seedless. Dr: resistant to cottony psyllid and ash flower gall mite. Ch: USDA 3a, more cold hardy than typical, possibly to USDA 2 but not yet proven. Or: Dr. Philip Ronald, a superior seedling out of 143 elite seedlings tested near Portage la Prairie, Manitoba, Canada, derived from a population of seedlings collected from a single maternal tree in northern Wisconsin. Web: <http://www.jeffriesnurseries.com/Nobility.pdf>, accessed 1.14.2017

FRAX003 - *Fraxinus americana* CALYPSO™ 'DurKar' - 16m tall x 12m wide, pyramidal with age. Leaves green, purplish in fall. More cold hardy.

FRAX004 - *Fraxinus americana* TUXEDO™ 'DurGar' - 12m tall x 9m wide. Leaves rich purple in fall, showy. Male, seedless. More cold hardy.

FRAX005 - *Fraxinus excelsior* 'Diggi Saule' - dwarf, very compact, globose-headed, 5 cm growth per year, leaves dark green.

Gardenia jasminoides 'Golden Doubloon'



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GARD001 - Gardenia jasminoides (G. augusta) 'Golden Doubloons' named by Nurseries Caroliniana and seen here at the Raulston Arboretum Lathouse is the first highly variegated, very gold clone. It looks rather lime and chartreuse here in spring 2014 but will get goldier with time. It's a very interesting new plant.

GARD002 - Gardenia jasminoides 'Cream Picotee' - 3-4 ft. tall x 2-3 ft. wide. Flowers semi-double, large, similar to 'Chuck Hayes'. Leaves "smallish, shiny, green...both streaked and spotted creamy whites". Or, in: www.cistus.com, accessed 3.29.2016, their own intro. Gardenia jasminoides 'Cream Picotee' - 3-4 ft. tall x 2-3 ft. wide. Flowers semi-double, large, similar to 'Chuck Hayes'. Leaves "smallish, shiny, green...both streaked and spotted creamy whites". Or, in: www.cistus.com, accessed 3.29.2016, their own intro.

GARD003 - Gardenia jasminoides COCONUT MAGIC™ 'Extra Large Cream' - 48 in. tall x wide, flowers large at 5-6. in wide, double, creamy-white. Ball Ornamentals exclusive, accessed 1.16.2016

GARD004 - Gardenia jasminoides BITTY BOUTONNIERE™ 'Leethree' - 2.5 ft. tall x 3.5 ft. wide, compact, mounded. Flowers single, radial ("daisy-like"), very small (5.5cm wide), highly scented. Intro. Home Garden TV (HGTV) 2015. Or, pat: Robert Lee, Independence, Louisiana, US PPAF files 8.11.2014, open-pollinated from 'Daisy'.

GARD005 - Gardenia jasminoides 'Leefour' - 60cm tall x 50cm wide, upright, vigorous yet remaining compact, more adpted to US southern gardens, more heat tolerant, larger and stronger than parent 'Daisy'. Leaves glossy, dark green, 6.0cm long x 2.8cm wide. Flowers highly scented. Or, pat: Robert Lee, Independence, Louisiana, US PPAF files 8.11.2014, open-pollinated from 'Daisy'.

GARD006 - Gardenia jasminoides ScentAmazing™ 'Leetwo' - 3-4 ft. tall x 4 ft., wide, habit compact, very dense, smaller and stronger than parent 'Daisy'. Leaves darker green and more glossy than parent 'Daisy'. Flowers small, very highly scented, single, radial petals, blooming early and over a long period. Very heat tolerant, more suitable for US soutner garden conditions. Or, pat: Robert Lee, Independence, Louisiana, US PPAF files 8.11.2014, open-pollinated from 'Daisy'. Intro: Southern Living Plant Collection.


GARD007 - Gardenia jasminoides 'Genie-2' - dense, low-growing, 60cm tall (2 years). Leaves dark green, 60mm long x 15mm long. Flowers 5cm wide, petals 30mm long x 20mm wide, double in 3 whorls. Prop: roots easily from cuttings. Pat, or: US# 26734 on May 17, 2016 to Allyn Cook, Gainesville, Florida, USA as seedling of stockin Alachua, Flora.

GARD008 - Gardenia jasminoides var. radicans O SO FINE™ 'KEN04' - 30 cm tall x 100 cm wide, mounding to groundcover type, "dwarf form with softer appearance", short internodes, finely-textured. Flowers white, more numerous than typical for groundcover types. Or: Kenhurst Nursery, as sport. In: Oxbreed Nursery. Aw: Gold Award, Green Expo Sydney. Web: <http://ozbreed.com.au/hardy-exotic-range/o-so-fine-gardenia-is-a-finer-leaf-groundcover-plant-with-masses-of-white-flowers-hardy-exotic-range/>

GARD009 - Gardenia jasminoides SNOW GIRL™ 'CP14ER789' - 24 in. tall x 36 in. wide, compact, mounded, semi-dwarf. Leaves small, very dark green, typical of modern dwarf singles. Flowers single, 5-petaled. very floriferous. In, ph: <http://www.hawksridgefarms.com/viewplant.php?id=2109>, accessed 10.7.2016

GELS001 - Gelsemium JASMINE DUET® (G. rankinii x G. sempervirens) - said to combined the best traits of both southern US species, flowers very abundant, corolla as in both species, long bloom period into winter. In, ph: <http://gardenersconfidence.com/plants/jasmine-duet-jessamine>, accessed 10.11.2016. Ns: the choice of the trademark name is perhaps unfortunate as this genus is not a Jasmine in any sense but by southern traditional, botanical and by folklore, the "Jessamine".

**Hatch's
Cultivars of
Woody Plants
2017-2018 Edition**



**Laurence C. Hatch
Horticultural Taxonomist**

Ginkgo - Cultivars of Woody Plants is our standard for the previously known, existing 208 named cultivars.. Your purchase of this monograph from [Google Play Books](#) goes to support OROC.

GINK001 - Ginkgo biloba 'Jagged Jade' - leaves thicker than parent 'Jade Butterfly' (sport of) and with a jagged, irregular sawtooth margin of irregular sizes, perhaps 25-45 teeth per blade. So: www.mrginkgo.com, accessed 5.16.2016

GINK002 - Ginkgo biloba f. fastigiata 'Grindstone' ('Grind Stone') - 30 ft. tall x 5 ft. wide, fastigate to narrowly columnar. Or: from a notable tree in Grindstone Lake, New York,

CULTIVAR.ORG

USA.

GINK003- Ginkgo biloba 'Folkert' ('Folkert's Select' invalid) - slow, dwarf. Leaves smaller. So: www.handynursery.com, accessed 5.6.16.2016

GINK004 - Ginkgo biloba 'All Gold' - leaves golden-yellow in spring, summer, and more so in fall, can burn in sun. In: Brent Markus per Mesterhazy, Conifer Treasury, accessed 5.21.2016

GINK005 - Ginkgo biloba 'Snow Cloud' - leaves heavily suffused yellow over most of the blade in spring and into summer, unlike most summer-gold ginkgos this one has a cloudy, creamy or whitish upper leaf margin, some leaves quite a pale yellowish-white. In: www.coniferkingdom.com, accessed 5.22.2016

GINK006 - Ginkgo biloba 'Slovakian Princess' - miniature from witches broom, dense. Leaves tiny, only about 1 inch wide, not a full fan but still bilobed most of the time, new growth distinctly folded and cup-shaped though not fused. In, ph: <http://www.coniferkingdom.com>, accessed 10.12.2016

GINK007 - Ginkgo biloba 'Crispins Jade Jester' - Leaves with the so-called "jagged" mutation, highly fasciated blade with much rugosity-ridging, the apical teeth (and of course there are dozens) of irregular size, thickness, and acuteness, also sectored and striped in light yellow to cream, even greenish-yellow, a chimera perhaps 30-45% surface, said by Whitman Farms to be "remarkably stable". Or: Crispin Silva. Web, so, in: <http://www.whitmanfarms.com/blog/crispins-jaded-jester-ginkgo/>, accessed 3.10.2017

GINK008 - Ginkgo biloba 'Xiajin' - leaves with long petiole, shallow lobing, undulate margin, very showy golden-yellow in spring and part of summer, later yellowish-green. Sex: female. Or: Tai'an City Academy of Forestry Science, selected from near An'lu, Hubai, China "after many years of observation". Li: <https://www.cabdirect.org/cabdirect/abstract/20103040424>, accessed 4.29.2017

GINK009 - Ginkgo biloba 'Jubao' - narrower crown (just 40cm wide in young trees), "ovate", compact, "all branches are obliquely growing and bending toward the trunk", longest limb 28-30cm wide. Leaves reduced, 3 cm x 4 cm wide. Sex: female. Or: Tai'an City Academy of Forestry Science, from a single tree in "a ginkgo resource garden"

GINK010 - Ginkgo biloba 'Songzhen' - leaves of three types, "trumpet-shape, fan-shape, and tube-shape appeared on the same branch....ornamental". Or: Tai'an City Academy of Forestry Science

GINK011 - Ginkgo biloba 'Taishanyulian' - branches drooping, leaves of two types, "one herringbone blade with a deep crack that reaches to vane [vein] base; another kind of blade with shallow or very shallow crack, narrow blade, fan-shaped or semiorbiculate", margins undulate or toothed with short lobing. Sex: female. Or: Tai'an City Academy of Forestry Science, from single tree at a "Ginkgo germplasm resource garden". GINK008 - Ginkgo biloba 'Xiajin' - leaves with long petiole, shallow lobing, undulate margin, very showy golden-yellow in spring and part of summer, later yellowish-green. Sex: female. Or: Tai'an City Academy of Forestry Science, selected from near An'lu, Hubai, China "after many years of observation". Li: <https://www.cabdirect.org/cabdirect/abstract/20103040424>, accessed 4.29.2017

GINK012 - Ginkgo biloba 'Survivor' - spreading-cascading to semi-weeping, semi-dwarf, leaves much narrower, often boldly bifid (2-lobed), usually longer than wide, some highly incised with additional lobes.

GINK013 - Ginkgo biloba 'Clica' - 50 cm tall (10 years), dwarf, subglobose, recommended for rockeries and small borders, very compact, heavily branched, leaves reduced in size.

GLEED001 - STREET KEEPER® 'Draves' (streetkeeper.net) - 45 ft. tall x 18-20 ft. wide (50 years), columnar to narrowly ovoid, central leader dominant, strong crotch angles, reminds us of the old 'Elegantissima' but denser, narrower, suitable for larger city streets with half or less than normal spread. Leaves dark green, more textured, yellow in fall. No fruit seen in 50 years. US Plant Patent #21698, Tom Draves, found near Buffalo, New York from a notable tree.

GORD01 - Gordonia lasianthus 'Swampy' - habit more vigorous. More cold hardy, selected from near Aiken, South Carolina, a more northern range than some nursery stock. Selected by Chuck Weeks, former employee with Nurcar.com, accessed April 2013.

GYMN001 - *Gymnocladus dioica* 'UMNSynergy' TRUE NORTH™ - vase-shaped, much narrower for small spaces (30-40 ft. vs. 40-60 ft. of species). Fruitless. University of Minnesota introduction.

HALE001 - *Halesia carolina* CRUSHED VELVET™ 'JFS-PN2Legacy' (J.F. Schmidt) - 20 ft. tall x 15 ft. wide, ovoid, more compact and slightly more narrow, finer textured branching. Leaves rich bluish-green, smaller dimensions, textured, and waxy, hence the trademarked name.

HAMA001 *Hamamelis* 'Foxy Lady' - flower tepals vary ruby red to dark violet-red, one of the darkest reds known in the genus (May 2015). Selected by Chris Lane.

HAMA002 *Hamamelis virginiana* 'Lemon Lime' (Rare Find Nurseries) - leaves very finely striped, speckled, and thinly sectored in typical green, lime green, chartreuse and light yellow, about 50% chimera and thus highly colorful.

HAMA003 *Hamamelis vernalis* ORANGE SUNRISE™ (Song Sparrow Nursery) - 5-6 ft. tall (10 years), flowers abundant, very fragrant, tepals orangish-gold, calyx a contrasting dark red. Leaves in dark red shades in fall. Roy Klehm selection.

HAMA004 *Hamamelis* GRAPE FIZZ™ 'KLMNN' (Song Sparrow Nursery) - 5 ft. tall x wide (10 years). Flower tepals an unusual lavender-purple. Leaves with gold colors in fall. Roy Klehm selection

HAMA005 - *Hamamelis vernalis* PURPLE PRINCE™ 'KLMKK' - 7-10 ft. tall x 6-8 ft. wide (10 years), erect, vigorous.. Flower tepals deep rosy lavender, appearing a lavender-purple to violet from a distance. Leaves green, becoming orange and red shades in fall, dropping cleanly before next spring's floral show. Or: Roy Klehm, introduced www.songsparrow.com, accessed 4.6.2016

HAMA005 - *Hamamelis vernalis* RUSTIC RUBY™ 'GROY' - 7 ft. tall x 6 ft. wide (10 years), form more compact than species typical. Flowers "rich brick red". Or, so: Selected by Roy Klehm, propagated on own roots, [http://www.songsparrow.com/catalog/plantdetails.cfm?ID=4968&type=WOODY.&pagetype=plantdetails&plant_name=Hamamelis%20vernaliss%20Rustic%20Ruby%3Csup%3E%20\(%27GROY%27\)](http://www.songsparrow.com/catalog/plantdetails.cfm?ID=4968&type=WOODY.&pagetype=plantdetails&plant_name=Hamamelis%20vernaliss%20Rustic%20Ruby%3Csup%3E%20(%27GROY%27)), accessed 5.10.2017

HAMA006 - *Hamamelis* 'Winter Champagne' - 15-18 ft. tall x wide, large shrub to small tree, flower tepals yellowish-orange, blooming mid fall into winter. Cross of *H. virginiana* x *H. vernalis*, showing glaucous undersides on leaf below, these glabrous. Or: Brotzman before 2011.



HEDE001 - Hedera helix 'Nilita' - click above image to enlarge. Habit slower, vinous. Stems red to reddish-violet or tinged so. Leaves 5-lobed, star-shaped, entire, blade very flat, terminal lobe dominant, 5cm long x wide (average), goldish-yellow to greenish-yellow, later becoming more light green to ivory depending on light and temperature, base deeply cordate, apex subacute. The originator says " 'Renton Gold' has more greenish, not gold color, not star-shaped leaves, with slightly undulate, not flat margin, and rounded, not subacute apex, and reddish-green not red as in the 'Nilita' stem. Our observations that the lobes are more narrow, less undulate, more uniform in color (less suffused green in early leaves), and far less rugose than the popular 'Buttercup'. Or: Andriy V. Yena, as sport of 'Surprise' in 2010, courtesy to originator for use of this photo and description. Not registered with the American Ivy Society. **The spelling 'Niliata' which appeared in previous volumes is incorrect. 'Nilita' is correct.**



HEDE002 - *Hedera helix* 'Yarik' - click image above to enlarge. Habit very slow, self-branching, dwarf, miniature class. Leaves lanceolate to narrowly three-lobed, lateral lobes 1-2, rarely absent, these lobes very small, reduced at times to large teeth or wide undulations of the margin, sometimes their upper surface at a right angle to the margin above, dark green, 2.5 cm long x 1.0 cm wide (average), base cunate, apex bluntly obtuse. Considered resistant to *Xanthomonas hortorum* pv. *hederae*. The originator states it differs from 'Arguta' with its greenish, not whitish veins, ribbed midrib [raised line], and more rounded apex. Or: Yaroslav A. Yena, as sport of 'Anake' in 2014, courtesy to originator for use of this photo and description.



HEDE003 - *Hedera helix* 'Papa Yena' - click image above to enlarge. Leaves palmately 5-lobed to medium depth (about 1cm), star-shaped due to about equal primary vein angles, entire, 5 cm long x wide, medium green with some brighter sectors of green, heavily mottled yellowish-cream at about 35-50% surface, many blades also irregularly margined in the same shade, deeply cordate, basal lobes often overlapping, apex subacute, terminal lobe wide and symmetrical. The originator states that 'Pittsburgh Variegated' less regularly mottled with almost no marginal chimera and has narrower blades with a longer terminal lobe. 'Harlequin' is similar but belongs to subsp. *hibernica*, a tetraploid. Or: Andriy V. Yena, found as sport of 'Mona Lisa' in 2011, name for the originator's father Prof. Vasily Yena. Courtesy to the originator for use of this image.



HEDE004 - *Hedera helix* 'Eny' - "Leaves narrow cordate to cordate, 4 cm long x 3 cm wide (average), light (limey) green with white and grey-green spots and mottles, apex rounded, stems and petioles red. 'Eny' could be compared to at least three cultivars: 'Eileen', 'Eugen Hahn', and 'Bruder Ingobert'. 'Eny' differs from 'Eileen' with its more flat, and typically narrow cordate leaves (not wavy, wide, five-lobed, or reniform as in 'Eileen'), gray-green spots and zones together with white spots and smears, never with the faint reddish tints (leaves of 'Eileen' spotted white or creamy with faint reddish tints). Leaves of 'Eny' are never colored dark green or produce acute lateral lobes as 'Eugen Hahn'. Rarely, similar narrowly cordate leaves can be produced by 'Bruder Ingobert' but typically its leaves are 3-5 lobed, dark green, less white spotted and much more gray-green zoned". Or: Dr. Andriy V. Yena, Professor and Head of the Dept. of Phytobiology, Simferopol, Republic of Crimea, the previous description written by the originator.



HEDE005 - Hedera helix 'Sasha' - "Leaves 3–5-lobed, entire, slightly convex, 4 cm long x wide, with shallow sinuses and slightly cordate to truncate base, dark green with yellow main veins and the center suffused with a big yellowish green spot mottled dark-green, limey-green, yellow and sometimes white. This variegated zone often reaches tip of terminal lobe. tem reddish.

In contrast to all yellowish-centred ivy cultivars, 'Sasha' derives from aboriginal Crimean population of Hedera helix, not from other cultivars. Yellowish blotch is mottled with yellow, light green and dark green, rare white but never evenly colored as in all similar cultivars, very stable (doesn't darken or depend of light conditions as e.g. in 'Nugget'). Among yellowish centered cultivars of *H. helix*, 'Sasha' is the only hatched additionally white. 'Sasha' also differs from similar 'Peter' with wide-triangular and slightly longer terminal lobe (not narrowly triangular lobes with longer terminal lobe as in 'Peter') and from 'Serenade' (which is very close to 'Nugget') with much more bright central spot. Frost tolerant to -25°C (as opposed to similar 'Green Quartz')."

Or: Dr. Andriy V. Yena, Professor and Head of the Dept. of Phytobiology, Simferopol, Republic of Crimea, sport found in 1984 in the wild in RF, Crimea, vicinity of Yalta. The previous description written by the originator as well as the following comparative chart. Photo above copyright owned by and courtesy of Dr. Yena.

A COMPARISON OF LEAVES OF THREE IVY CULTIVARS

No	'Nugget'	'Peter'	'Sasha'
1	Basal leaf color green	Basal leaf color green	Basal leaf color dark

			green
2	Leaf blade thin	Leaf blade thin	Leaf blade leathery
3	3-lobed	3-5-lobed	5-lobed
4	Basal lobes absent	Basal lobes small, pronounced	Basal lobes small, slightly pronounced
5	All lobes nearly equal	Terminal lobe 2,5–3 times as long as lateral	Terminal lobe 2 times as long as lateral
6	Venation weak pronounced	Venation weak pronounced	Venation (incl. secondary veins) clearly pronounced, of wild ivy type
7	Basal veins arc-like, ½ times as long as lateral	Basal veins straight, ¾ times as long as lateral	Basal veins straight, ¾ times as long as lateral
8	Central blotch unstable, monochromatic, light green,	Central blotch unstable, monochromatic, light green,	Central blotch stable and mottled with yellow, light green, dark green, rare white
9	Veins within blotch thin, yellowish	Veins within blotch thin, light green	Veins within blotch thick, yellow
10	Self-branching	Self-branching	Not self-branching

HEDE006 - *Hedera helix* 'Tattoo Ripple' – a new 'Yellow Ripple'-like cultivar with 5-cm leaves of notable dark-green thin edges and triangles in sinuses. Of particular interest is its special yellow color with blue reflex.

In: <http://www.floricode.com/Portals/0/Downloads/Productcoderingen/svsB1602040.pdf?ver=2016-02-29-123928-137>, accessed 01.04.2017. Thanks to Dr. Yena for providing this data and the following two named *Hedera* clones.

HEDE007 - *Hedera helix* 'Minisonja' - leaves birdfoot type, reduced, ovate in outline. In: <http://www.floricode.com/Portals/0/Downloads/Productcoderingen/svsB1602040.pdf?ver=2016-02-29-123928-137>, accessed 03.06.2017, also <http://www.caparis.nl/hedera/php/pics.php>, accessed 3.13.2017.

HEDE008 - *Hedera maroccana* 'Neon' – very attractive big star-like leaves of bright yellow color, some green-centred, all turn green soon. A sport from 'Spanish Canary'.

Misidentified as *Hedera algeriensis* (<http://www.canadaplants.ca/display.php?id=5341>, accessed 11.30.2015). In:

<http://plantsarethe strangest people.blogspot.com/2008/07/ghost-hedera-canariensis.html>, accessed 03.06.2017.

HSYR001- *Hibiscus syriacus* PURPLE PILLAR™ 'Gandini Santiago' - 10-16 ft. tall, columnar (officially "pyramidal" per US Plant Patent), neat. Flowers sterile, semi-double, somewhat open-faced to show markings, rich purplish-lavender, heavily marked and streaked red to violet-red, each zone orbicular with 7-12 claw-like or striped projections. Or: US Plant Patent #25568 on May 19, 2015 to Marinus van Aart, Oudenbosch, The Netherlands, as chance seedling found in Girona, Spain 2002. In:

www.springmeadownursery.com, accessed 2.28.2016

HSYR002 - *Hibiscus syriacus* RUFFLED SATIN® 'SHIMCR1' - US Plant Patent #26222

HSYR003 - *Hibiscus syriacus* LIL' KIM™ 'SHIMRV24' - US Plant Patent #26374

HSYR004 - *Hibiscus syriacus* PEPPERMINT SMOOTHIE™ 'DS04PS' - 8 ft. tall x 4 ft. wide, dense, freely branched. Leaves dark green, Flowers fully double, petals and petaloides variable in size, somewhat undulate, mix of pale pink and darker pink shades to some near reddish-purple, effectively all pink from a distance but bicolored on close inspection, early season, uniform, floriferous, long bloom period. Or, pat: US# 26551 on March 29, 2016 to Don Shadow, Winchester, Tennessee as open-pollinated cross.

Source, photo: http://www.greenleafnursery.com/index.cfm?fuseaction=plants.plantDetail&plant_id/6138/index.htm, accessed 4.6.2016

HSYR005 - *Hibiscus syriacus* LIL' KIM™ RED 'SHIMRR38' - 304 ft. tall x wide, compact, erect, vigorous, uniform. Flowers 5.75 cm wide, petals rich rose-pink to reddish-purple, distinct dark red eyezone. Leaves dark green. US Plant Patent #27195 on September 27, 2016 to Kyung Shim, Cheonan-si, Korea as part of a breeding program, cross made 2001, assigned to Spring Meadow Nursery.

In, ph: https://www.greenleafnursery.com/index.cfm?fuseaction=plants.plantDetail&plant_id=7113&typeID=&whichname=genus, accessed 10.5.2016

HSYR006 - *Hibiscus syriacus* 'Gandini Santiago' - US Plant Patent #25568

HSYR007 - Hibiscus syriacus RASPBERRY SMOOTHIE™ 'DS03RS' - habit dense, compact, freely branching, more compact than 'Notwood3'. Leaves dark green. flowers rich raspberry-pink to pinkish-purple, double, numerous petaloids in center, no eyezone generally visible, long blooming period. Or, pat: US# 27196 on September 27, 2016 to Don Shadow, McMinnville, OR as open-pollinated seedling of unnamed parent 2007. Li: Althea `Raspberry Smoothie` Oklahoma Gardening Show Notes. Jul. 13-14, 2013. <http://www.oklahomagardening.okstate.edu/show-notes/2013/july-13-14-2013-show-notes> (2 pages). cited by US Patent examiner.

HSYR008 - Hibiscus syriacus 'Carpa' - Flower petals violet, double. Leaves broadly margined yellow (10D) in spring or new tips, fading paler (RHS 157D) Or, pat: US# 24965 on October 14, 2014 to Paul Van Der Kroft, Strathroy, Canada as sport of 'Ardens'

HSYR009 - Hibiscus syriacus FRENCH CABERET® PASTEL 'MINDOUB1' (FRENCH CABERET® BLUSH) - stronger, more vigorous plants than old clone 'Leopoldii'. Flowers fully double, informally so, white streaks in shades from violet-red to pale pink, many pinks shades between these, this rich pigment about 10-40% petal surface but variable. Sterile. Or: Corinne Liquiere, Minier Nurseries, France, introduced 2014, widely sold 2015. Ns: the trademarked name is mostly with the world PASTEL in Europe but has been sold as BLUSH in the US, keeping the same 'MINDOUB1' true cultivar name. As the originator uses the PASTEL name, we accept this here as correct.

HSYR010 - Hibiscus syriacus FRENCH CABERET® PURPLE 'MINDOUV5' - flowers fully double, informal, rich violet-purple, fairly uniform in the one color. Eval: improved over old clone 'Souvenir de Charles Breton'. Or: Corinne Liquiere, Minier Nurseries, France, introduced 2015, widely sold 2016.

HSYR010 - Hibiscus syriacus FRENCH CABERET® RED 'MINDOUR1' - flowers fully double, informal, dark violet-red. Or: Corinne Liquiere, Minier Nurseries, France, introduced 2015, widely sold 2016.

HSYR011 - Hibiscus syriacus SUP'HEART® 'Monomb' - flowers white, quite wavy and undulate, more so than most red-eyed whites, small to medium dark red eye to 10% surface or less, diameter quite large Or: Minier Nurseries, 2012.

HSYR012 - Hibiscus syriacus POLLYPETITE™ 'Rosina' - 3-4 ft. tall x wide, dwarf, globose in time. Flower corolla pinkish-lavender. Leaves dark green. Fruit showing "very low seed set". Web, in: <http://springmeadownursery.com/plant/31730>, accessed 3.13.2017

HSYR013 - Hibiscus (syriacus x paramutabilis) WALBURTON'S® ROSE MOON 'WALHIROSMO' 10 ft. tall x 6 ft. wide, robust, upright. Flowers 6-8 in. wide, corolla rich rose-pink, very large violet-red eyezone continuing up into the full petal at 12-15% surface, much larger red eye than most cultivars. Web: <http://planthaven.com/plant/hibiscus-rose-moon/>, accessed 5.1.2017. Or: Walbertons Nursery, UK, <http://www.walberton-nursery.co.uk/walbertons-introductions/>

HSYR014 - Hibiscus syriacus WHITE PILLAR™ 'Gandini vcan Aart' - 5-8 m tall, narrower than species typical, leaves dark green, flower corolla all white, semi-double. Or: Francesco Gandini. In: 2016. Web: <http://www.grootgroenplus.nl/hibiscus-syriacus-gandini-van-aart-white-pillar-2>, accessed 5.11.2017

Editor's Note: Hypericum - there are numerous floricultural cultivars released each year, most for the cut fruit trade. You know...the flowers baskets you send to your grandma on her birthday and she asks what the round green things on twigs are. We are including only those cultivar known to exist in the outdoor, landscape trade and are proven for that culture.

HYPE001 - Hypericum calycinum GOLDEN RULE 'NCHCI' - photo courtesy of and copyright owned by Dr. Tom Ranney, NC State University. Please click image to enlarge. Above image is not part of OROC Data Sharing.

HYPE002 - Hypericum BLUE VELVET™ (Hawksridge Farms)

HYPE003 - Hypericum kalmianum COBALT-N-GOLD™ 'PIIHYP-I' - 2-3 ft. tall x 4-5 ft. wide, compact but not overly dense, somewhat open and natural-looking branch architecture, mounding, not splaying out or getting rough with age, not producing open or unkempt centers. Bark cinnamon-brown, exfoliating, semi-showy. Leaves silvery-green, effectively bluish-green as the trademarked name implies, fall tones yellow, red, and orange. Flowers bright yellow, small but numerous heads at the apices, bloom period long as in late spring to early summer. US Patent #25318 on Feb. 24, 2015 to Joshua Kardos and Dr. Michael Dirr of Georgia, USA, as open pollinated seedling. assigned to plantintroductions.com.

HYPE004 - Hypericum kalmianum BLUES FESTIVAL™ 'SMHKBF'- 24-36 in. tall x 24-48 in. wide. Leaves elliptic, distinctly bluish-green to - silvery-blue. Flowers to 1 in. wide, single, very long bloom period.

HYPE005 - Hypericum calycinum 'Fiesta' . <http://www.plantdelights.com>, accessed 1.16.2016, new for 2016016

HYPE006 - Hypericum CORNFLAKES® 'Vappzalm' - 50-70cm tall. Rust resistant. Leaves retained in autumn. Fruit brownish-red, calyx lime green, later more black, lasting up to December. Flowers bright yellow.

HYPE007 - Hypericum androsaemum 'Matisse' - (Dr. Tom Ranney, North Carolina State University)

HYPE008 - Hypericum androsaemum 'Pollock' (Dr. Tom Ranney, North Carolina State University)

HYPE009 - Hypericum androsaemum 'Picasso' (Dr. Tom Ranney, North Carolina State University)

HYPE010 - Hypericum myrtifolium 'George Girl' - 15 in. tall x 25 in. wide, flowers rosy-red in bud, opening rich yellow, 0.75 in. wide, stamens showy and much exerted, blooms very numerous in spring, sporadic in summer, "heavy again in fall...still going strong for us in mid-November (Plant Delights, Raleigh NC)". Cold hardy in Raleigh NC (USDA 7b), having survived temps to single digits for 16 years. Or: Tony Avent found in wild near Pierce County, Georgia in 2001 "in a moist cutover woodland, teeming with more snakes I've seen in one place since watching Raiders of the Lost Ark".

ILEX001 - Ilex pedunculosa 'Mountain Mist' (Raulston Arboretum, Instagram) - legacy name, registration requested

ILEX002 - Ilex 'Elizabeth Coleman' (Camellia Forest) - legacy name, registration requested

ILEX003 - Ilex x meserveae SCALLYWAG™ (Monrovia) - legacy name, registration requested

ILEX004 - Ilex vomitoria MICRON® (Garden Debut) - legacy name, registration requested

ILEX005 - Ilex vomitoria EUREKA GOLD™ (Garden Debut) - legacy name, registration requested

ILEX006 - *Ilex crenata* 'Adorned' (JC Raulston Arboretum) - legacy name, registration requested



ILEX007 - *Ilex crenata* BRASS BUCKLE™ - - legacy name, registration requested. Image above copyright owned by and courtesy of www.provenwinners.com.

ILEX008 - *Ilex opaca* 'Winter Sun' (Rare Find Nursery, Holly Ridge Nursery) - we are all used to red and some gold-berried American hollies but here's one of the few that bridge that gap with golden-orange to pale orange fruit colors.

ILEX009 - *Ilex vomitoria* 'Lances Weeper' - vigorous, pendulous. Based on JC Raulston Arboretum, accession #040566 in 2004.

ILEX010 - *Ilex verticillata* 'Firestorm' - see [American Holly Society Registration](#)

ILEX011 - *Ilex* 'Baltimore Blaze' - see [American Holly Society Registration](#)

ILEX012 - *Ilex x attenuata* 'Blackwater' - 15 ft. tall x 8-10 ft. wide, vigorous, open branched unless heavily pruned, best trained in conical form. Stems purplish at first, later grayish-brown. Seedling of 'East Palatka' but resembling 'Foster No. 1', having more drought and soil saturation tolerance but it. Female clone, fruit heavily. Panhandlegrowers.com, accessed 5.9.2015.

ILEX013 - *Ilex cassine* 'Dodds Yellow' - 12-15 ft. tall x 8 ft. wide, open, erect. Leaves dark green, toothed. Fruit yellow, showy. Tom Dodd. Panhandlegrowers.com, accessed 5.9.2015.

ILEX014 - *Ilex cassine* 'Tensaw' - 15-20 ft. tall x 10-15 ft. wide, more heavily branched than some forms, narrowly to moderate pyramidal, crown often rounded with age. Leaves light green, very ovate, darker green with maturity. Panhandlegrowers.com, accessed 5.9.2015.

ILEX015 - *Ilex vomitoria* 'Miss Allentown' - 10 ft. tall x 4 ft. wide, dense, multi-trunked, narrower, very heavily branched. Leaves smaller, dark green. Fruit small, abundant. female clone. Selected by PGI. Panhandlegrowers.com, accessed 5.9.2015.

ILEX016 - *Ilex vomitoria* 'South Harbour' - 12-14 ft. tall x wide, very dense, wider as most species form. Leaves dark green, slightly purple in new tips. Selected by PGI from Little Sabine Bay, Pensacola Beach, Florida, USA. Panhandlegrowers.com, accessed 5.9.2015.

ILEX017 - *Ilex opaca* 'Brotzmans Male' - proven male pollinator. Selected by Brotzman's Nursery, Ohio, USA.

ILEX018 - *Ilex x meserveae* 'Little Gloss' - 50-150cm tall x 50-100cm wide, slow, dense, shrubby. Leaves bright medium green becoming dark green, very glossy, the name suggesting a little plant with gloss not a low amount of luster. Male clone, no fruit, good pollinator. Bred by K. Hibbers, Kranenburg, Germany.

ILEX019 - *Ilex maximowicziana* var. *kanehirae* IMPALA® (*Ilex mutchagara* hort.) - 1.5-2.5m tall x 0.5-1.0m wide, erect. Stems purplish, semi-showy. Foliage much as *Ilex crenata* but a sharper apex in general, 2-3 cm long, elliptic, serrulate, light green becoming darker. USDA 6. One reference states "it's correct Latin name is faqr too long and a bit complicated to pronounce and spell, hence its modern trade name IMPALA holly". Thus one might propose this a mere rename of the species but in the course of rooting this material it invariably becomes a popular clone of the species, and surely not it's sole representation worldwide, and may be regarded as a typical name names. First seen by us at havlis.cz, accessed 5.16.2015.

ILEX020 - *Ilex vomitoria* 'Scarlet's Peak' - 20 ft. tall x 3 ft. wide, fastigate to narrowly columnar, very dense, much narrower than 'Will Flemming', the current and popular evaluation standard for narrow Yaupons, a clone which often splits and sends out odd arms after being injured or flopping in portions in a very ungraceful manner, requiring regular pruning, this new clone with branches also much stronger than this standard. Leaves smaller than species typica (23-25mm long x 9.5-12mm wide), very dark green. Fruit red, sometimes numerous (20-35 per later branch), a female clone, not a male fruitless clone as 'Will Flemming'. USDA 7b-8 hardiness. Said to be replacement for the coniferous Italian cypress by some growers. US Plant Patent #20581 to Daniel Batson as cross of unnamed seedlings, selected 2005, patent assigned to Unique Plants Inc.

ILEX021 - *Ilex crenata* LUXUS® GLOBE 'Annys 5' - 60cm tall x 50 cm wide, densely subglobose to mounded, usually wider than tall in photographs, said to combine the best traits of *Buxus* and dwarf *Ilex*. Leaves short, dark green, glossy, mostly flat, about 3-5 small minute teeth per side, holding green color all winter. Ch: to -22 deg. C. Pat: Euro PBR 42629, bred by Andre van Nijnatten of Zundert.

Web, ph: <https://www.plantipp.eu/en/Plants/ilex-crenata-luxus-globe-annys-5pbr-2/>, accessed 10.11.2016

ILEX022 - *Ilex crenata* LUXUS® SPIRE 'Annys 4' - 175cm tall x 50cm wide, narrowly pyramidal, strong, spire-like if trained well. Leaves flat, dark green, glossy all year, not discoloring. Sex: male, no fruiting. Ch: -22 deg. C. Pat: Euro PBR 43630 to Andre van Nijnatten of Zundert.

Web, ph: <https://www.plantipp.eu/en/Plants/ilex-crenata-luxus-spire-annys-4pbr-2/>, accessed 10.11.2016

ILEX023 - *Ilex aquifolium* RED TIPS™ 'Spek 02' - leaves broadly margined a true gold, chimera 10-25% surface, new growth a very distinct and dark ruby red, very showy, if trimmed regularly these new tips provided a rich tricolor effect unlike most variegated hollies. Pat: US# 26088, Euro PBR 20131968. In:

<http://www.newplants.nl/en/planten/i/ilex-aquifolium-red-tips/>, accessed 10.11.2016

Best image: http://globeplanter.com/illustration/catalogue/large/ilexredtipscopie_0.jpg

ILEX024 - *Ilex x meserveae* 'David Carroll' - 30cm tall x 27cm wide as young plants, compact, rounded, freely branching, dense, bush, slower than parent 'Blue Princess'.. Leaves bright yellow to yellowish-green (RHS 151C abd 151D, 184A, 176C, 143C)., 3.5-4.0cm long x 2.4cm wide, petioles 6mm long x 1m wide, ovate, apex acute, base obtuse to truncate, margins serrate with short spines. Pat, or: US# 26926 on July 12, 2016 to David Carroll, sport of 'Blue Princess', found November 2003 on plants in Wayne Township, PA, USA. patent assigned to Spring Meadow Nursery. Google Patent: <https://www.google.com/patents/USPP26926>, accessed 8.6.2016

ILEX025 - *Ilex glabra* 'Gold Mine' - sport of 'Shamrock' with golden margins. Or: Gabe Cesarini, US Patent #14233

ILEX026 - *Ilex crenata* 'Golden Rock' - habit upright, slight open, reasonably compact. Twigs dark, contrasting with bright foliage. Leaves effectively all yellow, in fact suffused yellow over green, mottled gold, and also all gold. In, ph: <http://www.newplants.nl/en/planten/i/ilex-crenata-golden-rock/>, accessed 10.4.2016

ILEX027 - *Ilex crenata* 'Glorie Dwarf' - 50cm tall x 70 cm wide (5-6 years), dense, dwarf, compact, somewhat irregular tufted surface, possible *Buxus* replacement, 30% slower than parent 'Glorie Gem'. Leaves smaller and darker than parent 'Glorie Gem'. Or: Germany as variation of 'Glorie Gem'. In, ph: <http://www.newplants.nl/en/planten/i/ilex-crenata-glorie-dwarf/>, accessed 10.4.2016

ILEX028 - *Ilex aquifolium* 'Glanzzweg' - 10-50cm tall, dwarf, pyramidal with time, leaves very dark green. In, ph: <http://www.hachmann.de>, accessed 10.6.2016, appears to have been in the European trade for several years.

ILEX029 - *Ilex crenata* 'Shogun' - Stems light red, slightly showy. Habit generally spreading, wider than tall, subglobose or otherwise trained for hedging or large groupings. Leaves bright green, fairly small, reminding us at least of a *Microphylla* Group leaf aka 'Helleri' but on a much stronger plant. Or: Frank Schnupper, Germany as seedling. Pat: Euro PBR 2015/1015 In, ph: <http://www.newplants.nl/en/planten/i/ilex-crenata-shogun/>, accessed 10/7/2016. Originator's website: http://www.schnupper-baumschule.de/de/Sortiment/Ilex_Samurai_und_Shogun.html

ILEX030 - *Ilex crenata* 'Samurai' - i80cm tall, vigorous, very quite size, easily shaped and trained, narrowly pyramidal to columnar, *Buxus* substitute. Leaves light green, finally darker. Pat: Euro PBR 2015/1014. Or: Frank Schnupper, Germany as seedling. In, ph: <http://www.newplants.nl/de/planten/i/ilex-crenata-samurai/>, accessed 10.7.2016.

Originator's website:

http://www.schnupper-baumschule.de/de/Sortiment/Ilex_Samurai_und_Shogun.html



ILEX031 - Ilex 'Screen Play' (I. integra x I. latifolia) - 7-9m tall x 3.6-4.6m wide (10 years), dense, well-branched, upright, suitable by vigor for hedge or privacy screen use, growing up to 1.5m a year at first (Georgia, USA). Leaves bright green tinged bronze at first, later dark green, very glossy, notably lacking spinose teeth ("spineless") unlike 'Emily Brunner', margins finely serrate, thus a non-offensive, child-friendly hedge, blades very large as parentage suggests. Fruit rich dark red, very persistent. Ch: USDA 7.Or, pat: US# 27524 on 1.3.2017 to Toshibhiro, Hagiwara, Japan, as sport of a hybrid of this parent in 199, these seedlings created in 1987. Image above from US Patent Application.



ILEX032 - Ilex x meserveae 'Geers' - Moderate vigor for this hybrid group. Leaves greyish-green, margined creamy-white with a "dotted transition", chimera about 10-20% surface according to the US patent app images. Sex: male, fruitness, floriferous so may serve as a pollinator. Leaves spinose but not offensive or sharp to touch. Pat, or: US PP applied for 1.12.2017 by Peter Geers, Boskoop, The Netherlands, sport of 'Blue Prince' in 1995. Image above from US Patent Application, a noncopyrighted item.

ILEX033 - Ilex crenata STRAIGHT AND NARROW 'PIIC-I'TM - 6 ft. tall x 18 in. wide, columnar, superior in form over time to 'Sky Pencil' and 'Sky Sentry' per Bailey Nurseries, branches erect, not splitting or splaying as older cultivars, leaves flat (not convex), glossy dark green, good color in winter, male, Or: Plant Introductions Inc. c 2017 Web: https://www.baileynurseries.com/media/wysiwyg/bn/our-brands/firsteditions/marketing/brochures/downloads/FE-New_Varieties_2017.pdf, accessed 5.10.2017

ILEX034 - Ilex aquifolium 'Holly Girl' - Habit globose, leaves undulate, spinose, about 4-6 teeth per side, large light yellow to cream central (medio-pictum) variegation of about 80-90% surface, margins glossy dark green, transition zone a mix of green shades from pale to dark, sex female, "occasional fruit" has been reported. Or: Stewart McLean, McClean Nursery, Maryland USA. Photo: <http://www.hollysocam.org/image-viewer.htm?gallery/Ilex-aquifolium-Holly-Girl.jpg>, accessed 5.11.2017

ILEX035 - Ilex 'Carolina Cone' (I. dimorphophylla x I. cornuta) - leaves highly spinose, reduced to 1.5 inches, female with abundant red fruit, but also producing some male or staminate flowers in a spineless phase. Or: Gene Eisenbeiss, US National Arboretum as hybrid. I have seen a similar plant from Gene at the Raulston Arboretum but I cannot connect the two by name.

ILEX036 - Ilex 'Dragon Slayer' - Conical, small tree to large shrub, leaves elliptic-oblong to narrow quadrangular, minimally spinose with (0) 1-2 teeth per side, female, fruit red. Or: US National Arboretum as hybrid, unnamed by them, selected by Hampton Roads Ornamental Research Station, Virginia USA in 1992, the name registered by Mobjack Nurseries with the American Holly Society (HSA 1-12). Web: <http://www.hollysocam.org/image-viewer.htm?gallery/Ftest-holly-2014.jpg>, accessed 5.11.2017

ILEX037 - Ilex 'Dragon Claws' ((I. aquifolium x pernyi DRAGON LADY™)(I. cornuta x pernyi 'John T. Morris)) - upright, female, fruit red and oblong, leaves with usually 1 long claw-like spinose teeth (more like lobes) per side, sometimes 2, arching like sharp claws from each blade, these larger than parent DRAGON LADY™. Or: Jim Resch, Bear, Delaware, USA as hybrid. Web: <http://www.hollysocam.org/image-viewer.htm?gallery/FDragon-Claws-6-July-2009.jpg>, accessed 5.11.2017

ILLI001 - *Illicium anisatum* 'Allard' - flower tepals white.

ILLI002 - *Illicium anisatum* PURPLE GLAZE™ (Nurseries Caroliniana) - new growth very glossy, dark purple as if varnished in a dark blackish-purple sheen, later green, still glossy, eventually very typical and less glossy.

ILLI003 - *Illicium parviflorum* 'Florence' (Plant Dellghts)

ILLI004 - *Illicium floridanum* MISS SCARLETT® 'JCJC' - Habit denser than species. Leaves more rounded. flower rich pinkish-red (light to medium red), more strongly scented than species. James Fleming selection, introduced as a Southern Living Collection before April 2014.

ILLI005 - *Illicium parviflorum* BananAppeal™ 'PliIP-I' - 3-4 ft. tall x wide, compact, habit not gangly or irregular as 'Florida Sunshine'. Leaves yellow to greenish-yellow, bright, appear to be wider than 'Florida Sunshine', not bleaching as much as winter. Web: <http://www.plantintroductions.com/bananappeal8482smallanisetre.html>, accessed 10.4.2016



JASM001 - *Jasminum mesnyi* 'Sunglo' is absolutely one of the finest vine-like or long-branching shrubs for rich gold color. It is unfortunately not hardy for many of our readers (USDA 6b-7) but would certainly make a killer conservatory shrub if given strong enough light. It is also strong enough to make a summer outdoor treat if overwintered in a northern greenhouse. Its habit is quite different from FIONA SUNRISE™ and these colors tend to be richer in the new tips and more green with maturity of the leaf.

JASM002 - *Jasminum beesianum* 'Marshall Olbrich' (Cistus Nursery)

JASM003 - *Jasminum sambac* SUMMER SOUL® 'Monhariklia' - 6-8 ft. tall x 3-4 ft. wide where fully hardy, more upright and neater (less loose, vining) than 'Grand Duke'. Flowers larger, very full double (25+ unfused petals), petals and tepals highly congested, center of bloom slightly yellowish to lime, otherwise classic white to ivory of species, fully white at maturity (not as greenish as 'Grand Duke'), highly scented, 3.0 cm wide, 3.9 cm deep. USDA 9 hardiness. Pat, Or: US# 27171 on September 20, 2016 to Eugenia Tzioros, Matthews, North Carolina, found as mutation on plant in Volos, Greece. Web: <http://www.monrovia.com/plant-catalog/plants/3953/summer-soul-arabian-jasmine/>, accessed 9.26.2016

JUNI001 - *Juniperus scopulorum* SKY HIGH™ - legacy name, registration requested

JUNI002 - *Juniperus virginiana* (x *horizontalis*?) GREY GUARDIAN (Garden Debut) - - legacy name, registration requested

JUNI003 - *Juniperus x media* LEMON PFIZZ (Plant Haven) - - legacy name, registration requested

JUNI004 - *Juniperus x media* SEA OF GOLD (Monrovia) - legacy name, registration requested

JUNI005 - *Juniperus x media* ETERNAL GOLD™ - legacy name, registration requested

JUNI006 - *Juniperus horizontalis* GOLDEN FUTURE™, accessed 4.12.2015

JUNI007 - *Juniperus rigida* var. *conferta* 'Osaka Dwarf Blue' - Nurcar.com, accessed January 2013.

JUNI008 - *Juniperus x media* 'Girard Millenium' - as SAYBROOK GOLD™ but slightly mottled white, a chimeral mutation. Girard Nurseries, sport of their own SAYBROOK GOLD, found 2000, intro, 2014.

JUNI009 - *Juniperus squamata* 'Green Star' - Girardnurseries.com, 2014, this firm now closed.

JUNI010 - *Juniperus* STAR POWER™ 'J.N. Select Blue' - 6-7 ft. tall when similar *J. chinensis* 'Ames', 'Iowa' and *J. virginiana* 'Canertii' were just 4-5 t. tall at the same age, hence very vigorous, narrow upright, narrowly ovoid to narrowly pyramidal, dense, rich silvery blue. Leaves highly-divergent, similar to *J. communis* and juvenile foliage of *J. chinensis*, many star-shaped green leaves with star-shaped tips appearing, bright stomatal bands very apparent on the upperside. Michael Yanny, 1998 found as possible cross of *J. communis* x *J. chinensis*, introduced johnsonsnursery.com, Wisconsin. The images are not consistent with ordinary juvenile *J. chinensis* forms and so a cross to *J. communis* is likely.

Li: http://www.deckersnursery.com/wp-content/uploads/2012/01/JNInc_StarPowerFlyer.pdf

JUNI011 - *Juniperus squamata* LITTLE JOANNA® - much as (Meyeri Group) 'Blue Carpet' but even more compact, slower, low-spreading and not tufted nor mounded as 'Blue Star' which is much more vertical and decumbent. Eur. CPVO PBR to Boomkwekerijen Gebr. Visser, Netherland, "active: under procedure" when accessed 5.2.2015. This appears to be best available image of it, given the originator (Visser) has no posts (5.2.2015): <http://www.newplants.nl/typo3temp/pics/0173415259.jpg>

JUNI012 - *Juniperus squamata* 'Tropical Blue' - very dense, dwarf, compact-mounded, similar to 'Blue Star' but a more silvery-blue tone, sometimes with aqua notes (hence "tropical"), leaves shorter and sometimes slightly twisted about the stem but only moderately so, not a contorted clone but with nice subtle, irregular leaf twist. Older plants tend to have outwardly cascading shoots than 'Blue Star' but is not a wide-spreading clone in general.

PENDING - *Juniperus rigida* var. *conferta* 'Golden Wings' - Habit loosely procumbent to low, irregular decumbent, much as species in Western gardens. Leaves medium green, to pale blush-green, in the foliage mass variegated with a scattered chimera in light to medium yellow, 10-25% of branches and foliage mass. It appears identical to 'Sunsplash' from Brookside Gardens and of US and could be either a parallel mutation or rename. The use of this appears from web searches to concentrate mostly with Polish nurseries (may 2015).

JUNI013 - *Juniperus x media* 'Blue Chiffon' - elegantly spreading, some limbs erect, tufted long limbs, reminds us of a larger, arching *J. sabina* 'Blue Tam' overall. Leaves mostly divergent or adult type, bluish-green to light blue. Bluehorizonnursery.com, their own selection, accessed 6.2.2015.

JUNI014 - *Juniperus horizontalis* 'Copper Harbor' - as 'Bar Harbor' but newer shoots light to medium yellow, older foliage blue and contrasting, due to the parent cultivar's height differences, taller than 'Wiltonii' gold sports and yet shorter than LIMEGLOW, winter coloration a lovely mix of copper, orange, blue, bronze, and gold tones. bluehorizonnursery.com, their sport, accessed 6.2.2015

JUNI015 - *Juniperus procumbens* 'Pevé Spikkel' - compact, typical of the 'Nana' or slower clones in form. Foliage mass mottled 40% of surface in light yellow to cream, most variegated sections large and covering many secondary branchlets.

JUNI0016 - *Juniperus virginiana* 'High Schoals' - informally pyramidal, nice lacy look due to long shoot tips and good vigor, not overly dense yet neat, reliable green winter color, female clone and known to produce showy blue cones. Or: Ray Tate found outside Watkinsville, Georgia. In: www.boldspring.com, accessed 2.28/2016

JUNI0017 - *Juniperus virginiana* 'Greenbelt' - broadly pyramidal, bright rich green colors, developed for ease of transplanting, and we have seen as many as 50% of redcedar plantings in commercial settings fail. In: www.boldspring.com, accessed 2.28/2016

JUNI0018 - *Juniperus scopulorum* 'Woodward' - 20 ft. tall x 2-4 ft. wide, fastigiate, handling "snow loads with grace". Foliage dark green turning more greyish-blue in winter. It appears to be paler than 'Spartan' which while usually sold as a *Juniperus chinensis* is actually a *J. scopulorum* when the foliage and cones are subject to taxonomic scrutiny. A comparison of the two is warranted. Web: <http://plantselect.org/plant/juniperus-scopulorum-woodward/>, accessed 3.20.2016

JUNI0019 - *Juniperus horizontalis* [Plumosa Group] JAZZYJEWEL™ - as the Group but foliage very heavily mottled yellow to gold at about 25-40% of the foliage mass, this being a departure from several known mutants of 'Plumosa' and 'Andorra Compact' which are mostly mottled white to cream in low coverage rates (usually 5-24% foliage mass). This clone also appears to have a richer gold chimera color and more massive chimeral coverage than 'Variegata', the species' first known variegated clone.

JUNI0020 - *Juniperus scopulorum* BURLY BLUE™ - 24 in. tall x 6-8 ft. wide, habit low-mounded to spreading, grafted on standard per Monrovia site but they state "excellent replacement for Blue Creeper Juniper". Leaves richly frosty, bluish-grey. USDA 3. The habit suggests it may be a cross to *J. horizontalis* (which occurs in the wild within the *J. scopulorum* range and is well documented as a hybrid to it) or if from cultivation one of many low junipers which can breed to the tall species. In: <http://www.monrovia.com/plant-catalog/plants/5507/burly-blue-juniper/>, accessed 8.2.2016

JUNI021 - Juniperus (Hetzii Group) 'Izabelin' - as parent 'Hetzii' in silvery-blue, erect-arching, but a sport mottled creamy-yellow, growth 3-6 in. a year. Or: Sami Saidi, Poland, as known as J. x media 'Hetzii Variegata' in post-1959 Latin. Li: Mesterhazy, Z. 2010. Conifer Treasury of Poland. www.conifertreasury.org, accessed 10.3.2016. Ns: the Hetzii Group is not alligned with any one species but is a cross of J. virginiana 'Glauca' and J. x media 'Pfitzeriana', being a tricontinental hybrid of J. sabina, J. chinensis, and J. virginiana.

JUNI022 - Juniperus x media 'Kiss Mityu' - 4-6 ft. tall x wide, erect-arching, much larger than a typical golden Pfitzer clone, foliage rich yellow. Or: Kiss Mihaly, Hungary. Li: Mesterhazy, Z. 2010. Conifer Treasury of Hungary. www.conifertreasury.org, accessed 10.3.2016

JUNI023 - Juniperus x media 'Savaria Gold' - spreading Pfitzer type, shoots very lace, slightly open but plant overall quite dense, yellow foliage under rich golden to bright yellow tips, later chartreuse and green by the second year. Photo: <http://ns4.cpanel.hu/~egzota9/tarolo/conifertreasury/ren/Hungarian%20conifers/Juniperus%20media%20x%20Savaria%20Gold%20N%20E9meth%20Imre%20%20732.jpg>
Web: <http://diszfa.hu/?product=juniperus-chinensis-savaria-gold-arany-terulo-boroka>, accessed 10.3.2016

JUNI024 - Juniperus chinensis 'Richcrop Yellow' - habit dense, irregularly globobose to globose-pyramidal, foliage juvenile and adult, appears to be of Japonica Group morphology, foliage rich yellow, later a bright green, dark green in the canopy, female strobili abundant. Or: Jozsef Hodi Toth of Hungary collected seded from China, original plant now in the Arizonica Arboretum, Hungary, selected about 2014. Li: Mesterhazy, Z. and J. Hodii Toth. 2014. Conifer Treasury of Hungary 4.0, accessed 10.3.2016. Web, photo: <http://www.sophora.pl/katalog-roslin/juniperus-horizontalis/pigmalion-p435>

JUNI025 - Juniperus horizontalis 'Pigmalion' - 20cm tall after many years, miniature to pygmy, dense, tufted, foliage rich blue as parent 'Wiltonii', foliage mostly diergent and juvenile to various degrees, dervied from a sport of juvenile foliage of 'Wiltonii'. It is similar to 'Blue Pygmy', another super slow, pygmy juvenile selection but appears to be of more recent origin, the older clone known from Mr. Neumann of Jeddolph Nurseries, Germany. The origin of this newer clone is undetermined.

JUNI026 - Juniperus chinensis 'Shimpaku Fish Tail' - as 'Shimpaku', a dwarf, small-leaved, generally mint green to dark green plant or perhaps cultivar groups, this bonsai clone has more procumbent stems in a fishtail pattern, 4-6 inches a year. In, web: <http://www.stanleyandsons.com/product/jun-4055/juniperus-chinensis-shimpaku-fish-tail.html>, accessed 10.5.2016. Ns: in Japan the name "shimpaku" tends to refer to very old, "pre-bonsai" of no particular taxa collected in the crags of high, revered, ancient Japanese mountains and not the Western concept of a specific type dwarf, mint-green, tiny-leaved, scaly (adult type), semi-irregular form of J. chinensis sold in the bonsai trade that is generally recognized by one common clone, now best considered a cultivar group, and several variations upon it in clonal form. It is very likely the Western 'Shimpaku' came from one of those Japanese collections and likely from a notable bonsai tree or twenty but we have very little clarity as to it's origin. The Shimpaku Group as a whole is related to the 'Plumosa' types for the dwarf habit, small needles, and mint green color but unlike our Western concept of 'Plumosa' the typical 'Shimpaku' is not erect nor arching but a low mounded thing, quite irregular, wider than taller, often by 2-3 times, and quite informal.



The old Morris Arb tree, the oldest known weeping example in the US if not the Western world. Sourced from Cob Cob Nursery in 1935.



The oldest Cornell example from Chase Bros. Nursery 1941 and part of the Great One's (Liberty Hyde Bailey) renowned research and teaching collection called the Conifer Slope at Cornell Plantations.



JUNIPERUS RIGIDA S. & Z.

Wilson gave this plate as his typical *J. rigida* and some we know today are even more erect, conical, and dense, with fewer outward facing tips. This is clearly not our Weeping Group defined below.

JUNI027 - *Juniperus rigida* Weeping Group ('Pendula') - habit pendulous, often with long, horizontal arms (secondary branches) from the trunk outward, these may or may be slightly angled up at the apex, in some cases arching up and in other cases quite drooping to the very end, these secondaries 3-6 ft. long, the drooping branchlets below them easily 12-22 inches long, in the manner of *Chamaecyparis nootkatensis* 'Pendula' or Pendula Group in the widest, least erect or conical variations, with tertiary limbs hanging down vertically or nearly so, forming olive green curtains which please the eye and mind. Leaves rich olive-green, not as bluish-green or medium green as some more erect versions of the species which show stomatal bands due to the vertical or more erect positioning of the sprays. Older, more shaded, or cold-stunted specimens may have vertically pendulous tertiary limbs just 6-14 inches long. The typical clone in the US is female, bearing numerous waxy, glaucous cones after 10-20 years. There is another clone similar in habit which shows no cones nor does it show male strobili and this requires additional study. The majority of commercial *J. rigida* sold in the US are of this pleasing, weeping variety while in the wild the typical species in some semi-weeping at the tips and more often conical or erect and pyramidal. Our view of this species is very tainted in the US by the popularity of one or perhaps a few similar, very pendulous clones. The origin of this group and the familiar female clone of it remains unclear. The oldest tree clearly of this variation is at the Morris Arboretum (see image above) and was received Cos Cob Nursery in 1935. There is a gaunt, lonely, and thin tree on the Conifer Slope at the Cornell Plantations which was sourced from Chase Brothers Nursery in 1941. I have viewed many Chase catalogs and not found even the species listed so perhaps the great Dean and Professor L.H. Bailey who built that collection got it as a special favor. If anyone can or will fund a DNA study of these known materials we would grateful and perhaps a cultivar name or two would be in order. The epithet 'Pendula' was not published prior to 1959 and therefore cannot be the basis of a cultivar group. I have previously published this group in *Garden Junipers* and later *Cultivars of Woody Plants* but as OROC has a sometimes wider, more general audience this is a good opportunity to register the name with additional clarity and distribution.



Juniperus x ambigens (*J. horizontalis* x *J. virginiana*) Cedarug Group among 'Wiltonii' is one of its more typical phenotype combinations, that being greenish-blue, slightly less frosty than 'Wiltonii', very long, loose, open shoots with small, adult, appressed leaves and far more open than any known cultivar, except perhaps 'Jade River' in the shade. This is the only example I know that is mature in terms of cones, these being small, yellowish, male strobili. This sparse, overtopping of open shoots is very typical what you will find with Cedarugs. This is seedling CR01.



This image shows two of the *J. horizontalis* 'Wiltonii' x native *J. virginiana* seedlings in a very long 'Wiltonii' that is at least 30 years old. Seedling CR03 is similar to CR01 shown above but a tad greener. Seedling CR02 is very curious. It has very short, highly divergent (juvenile, prickly, sharp) needles not unlike a young eastern redcedar seedling, most of which are persistently juvenile for up to five years or so. It is very rich green and something like a small-needled 'Andorra Compact' (also from *J. horizontalis*) and I made sure it was not a planting error. It is far more loose and shorter-leaved than anything in the Plumosa Group but slightly suggestive of it overall. Think of it as perhaps a redcedar seedling with some procumbent to horizontal habit genes.



This is seedling CR04 and it reminds me of the named clone 'Hermit' (also of this same cross) we grew at the Raulston Arboretum in 1982 as part of my Master's Thesis on *Juniperus horizontalis* cultivars. That collective had over 52 named cultivars and lots of odd sports and such, one of which became the widely sold LIMEGLOW™. The CR04 type Cedarug clearly shows the erect genes of redcedar but carries the pretty frosty blue of 'Wiltonii' and is about as glaucous as it. Yet is has nothing much in common with the juvenile, erect clones like 'Blue Forest'.



Population CR05 here is from a rural BP gas station where the blue rugs are long-established and full of cones. These very gaunt things are clearly at 45 degrees (typical of an erect x prostrate species cross) but are very green like the thousands of Jv's the neighborhood. There may be as many of five of these seedlings and while these are unlikely to put any Pfizers out of a job, it is curious. Again, there is no existing cultivar in the US trade, surely not where this place is buying, like it.



This is CR06, very open and more vigorous than kudzu and much greener than 'Wiltonii'. There is nothing in the North Carolina that could have been confused with it. It has some of the aspects of the old, original 'Plumosa' but that has not been sold for decades in these parts and the foliage is not nearly as divergent as the Plumosa Group. Is this pretty enough for a name? We will see. And of course we need to give them a try in more stable evaluation gardens.



Here's another view of CR06 with it's rich green needles amid it's mother 'Wiltonii' which here is loaded with female cones. How fun and fascinating is this mix of colors and genetics.

JUNI028 - *Juniperus x ambigens* (*J. horizontalis* x *J. virginiana*) Cedarug Group NEW CULTIVAR GROUP - In 1945 the great botanist Fassett noted (Bull. Torrey Bot. Club 72: 380) that *Juniperus virginiana* crossed with *J. horizontalis* in the wild and he called these *J. virginiana* var. *ambigens*. Today we form hybrid species names differently so this taxon is best called *Juniperus x ambigens*. We later found out the two species cross back and forth in the wild in what is called "recurrent introgression". Some of the low-growing garden clones of *J. virginiana* around today (I'm thinking 'Royo') may belong to this cross (DNA work is needed) and there was one introduced years ago called 'Hermit' from a wild population (if memory serves) in Maine. It was kind of raw and ugly but very blue, never sold well. Some years ago I noticed that old plantings on *Juniperus horizontalis* 'Wiltonii' in ordinary cultivated locations like grocery store parking lots, universities, gas stations, parks, banks, malls, and abandoned malls often produced regular cones, that is female cones, for that cultivar is female only and dioecious (only one sex per plant) as is the entire genus. They cannot self fertilize to our knowledge. With observations I noted there were very long, unruly, long and arching sprouts (8-24 in. tall) from these plantings and to date I know over 18 beds of origin and about 30 plants. Landscape crews just cut them down into the low 'Wiltonii' canopy. These long sprays are not sports as I originally thought (perhaps high-vigor gibberlin mutants?) but standalone plants, likely seedlings. The only thing which could provide male pollen in these areas is....you guessed it...native and cultivated eastern reeders or *J. virginiana*. As expected, these seedlings range from near green to bluish-green to emerald-blue and only occasionally near the frosty blue of 'Wiltonii'. Some want to arch up and others want to be very robust but cascade a bit. They are trying to find a way - evolve in cultivation if you will. Their diverse variation is almost proof of hybridity. My only terror is a landscape supervisor who advises ripping them out because of knowledge of what 'Wiltonii' ought to be.

By the way, the male clone 'Bar Harbor' has not as yet produced such hybrids in my realm of observation and it reaching *J. virginiana* would be a far harder thing. Also beware of finding 'Bar Harbor' plants which get mixed in with 'Wiltonii' in some plantings and could appear like a taller seedling but in fact are clearly referable to this other clone and not nearly so variable in color, vigorous, or long-shooted as the Cedarug Group. They are also planted as rootballs and not loose seedlings. Now with knowledge of more than 30 such seedlings, I am confident these cultivated crossings deserve a name and evaluation of the best seedlings in stable, garden conditions with as much scientific scrutiny as possible. I do not think these most will be ornamental blockbusters since the trade has already embraced prostrate x conical crosses from *J. virginiana* 'Glauca' x *J. x media* 'Pfitzeriana' with vigor and beauty called 'Hetzii' and 'Grey Owl' for many decades now. I'm pretty darn sure the lovely and useful *J. virginiana* 'Royo' (frosty blue, low spreading mound) is one these creatures and if not surely with the big parent is frost king *J. scopulorum*, a cross which is known as *J. x fassettii* (*J. scopulorum* x *J. horizontalis*). Some of this new material may become interesting and valuable if we evaluate as many as possible. And yes my friends these will all be US natives for people sensitive to crazy exotic hybrids. Anyone on board? I need folks to propagate, distribute, and give trial to the "Cedarugs". Write me at ornamentals@lycos.com.

JUNI029 - *Juniperus chinensis* 'Swampscott Gold' - spreading, rich golden-yellow. Or: Brent Markus found as sport. Given the habit of spreading it may prove to be a *J. x media* sport. In, ph: <http://www.coniferkingdom.com>, accessed 10.12.2016

JUNI030 - *Juniperus procumbens* 'Lightning Spot' - foliage heavily mottled in bright yellow, chimera up to 45% surface, some small shoots all yellow. Web:

<http://hgeers.nl/assortiment/juniperus-procumbens-lighting-spot/>, accessed 5.11.2017

KALM001 - *Kalmia latifolia* 'Ginkona' (Esveld Nursery)

KALM002 - *Kalmia latifolia* 'Mitternacht' (Esveld Nursery)

KALM003 - *Kalmia latifolia* 'Red Bandit' - [Registered with the Kalmia Society](#)

KERR001 - *Kerria japonica* 'Chiba Gold' gives interest even when this fine, flowering species is not in gold bloom. In fact, it's true gold flowers contrast it bit poorly and awkwardly with the limey-chartreuse and pale lemon tones of the leaves. It is best as a misty blast of pale coloration in an other dark or blue border. It's not among the finest gold-leaved shrubs but it is different, fairly new, and rare.

KERR002 - *Kerria japonica* CAT'S EYE™ 'Shandale' - 2-3 ft. tall, flowers large, showy, golden-yellow as parent 'Shannon', leaves thinly margined white. Or, in: http://springmeadownursery.com/plants_details.php?id=52240, accessed 12.27.2015, as sport of 'Shannon'.

KOEL001 - *Koelreuteria paniculata* SUMMERBURST™ (J.F. Schmidt)

KOEL002 - *Koelreuteria paniculata* GOLDEN CANDLE™ (Upshoot) - 35 ft. tall x 4 ft. wide, narrowly columnar. Leaves rich gold in fall

KOEL003- *Koelreuteria paniculata* 'Beachmaster' - legacy name, registration requested, previously documented in Cultivars of Woody Plants

LAGE001 - *Lagerstroemia* BLACK DIAMOND Series, a cultivar group.

LAGE002 - *Lagerstroemia* PRINCESS HOLLY ANN™ 'GA 0701' - 3-4 ft. tall x wide, semi-dwarf, mounding at first. Leaves copper-red at first, later dark green, purplish-red in fall. Flower corolla rich pinkish-red, similar to common watermelon red cultivars overall, described as "cherry red" but all official show a brighter, more pink shade or red. Cold Hardy to USDA 6 or better . Dow Whiting Hybrid.

LAGE003 - *Lagerstroemia* PRINCESS KYLIE™ 'GA 0803' - 3-4 ft. tall x wide, semi-dwarf, mounding at first. Leaves grayish-green, undulate margins. Flower corolla rich magenta pink, intense and bold but not too harsh.. Cold Hardy to USDA 6 or better . Dow Whiting Hybrid.

LAGE006 - *Lagerstroemia* PRINCESS LYLA™ 'GA 0804' - 2-3 ft. tall x wide, dwarf, mounding at first. Leaves medium to dark green, gold in fall. Flower corolla light ot medium pink. Cold Hardy to USDA 6 or better . Dow Whiting Hybrid.

LAGE004 - *Lagerstroemia* PRINCESS ZOEY™ 'GA 0702' - 4-5 ft. tall x 3-4 ft. wide, semi-dwarf, mounding at first. Leaves very dark green, reddish-purple in fall.. Flower corolla very finely crisped-frilled, pink to rich rose-red, bicolored as the whole inflorescence in genera.. Cold Hardy to USDA 6 or better . Dow Whiting Hybrid

LAGE005 - *Lagerstroemia* 'Miss Frances' - HortScience 50: 1721-22 (2015) - Refer to <http://hortsci.ashspublications.org/content/50/11/1721.full.pdf+html> to purchase.

LAGE006 - *Lagerstroemia* 'Miss Gail' - HortScience 50: 1721-22 (2015). The following USDA document is useful: www.ars-grin.gov/npgs/images/na/docs/Miss_Gail_CM223.docx

LAGE007 - *Lagerstroemia* 'Miss Sandra' - HortScience 50: 1721-22 (2015)

LAGE008 - *Lagerstroemia speciosa* 'Big Pink' - HortScience 50: 1593-1594 (2015)

LAGE009 - *Lagerstroemia* BARISTA™ Series - www.waltersgardens.com, accessed 12.26.2015

LAGE010 - *Lagerstroemia* RED ROOSTER™ 'PIILAG-III' - 8-10 ft. tall, medium-sized, upright. Leaves very dark green, mildew resistant. Flowers a true bright red. Pat: US#23178.

LAGE011 - *Lagerstroemia* PURPLE COW™ 'GAMAD IX- habit medium-sized for genus. Leaves very dark green. Flowers said to be "deep purple" but all images we have seen show magenta-violet tones and not a true grape purple. Web: <http://gardenersconfidence.com/plants/purple-cow-crapemyrtle>, accessed 6.25.2016. Pat: US# 23560.

LAGE012 - *Lagerstroemia* PINK PIG™ 'GAMAD VIII' - Habit mid-sized for the genus. Flower petals light pink, a clean pastel shade, calyx and stems rich red and contrasting well. Pat: US# 23499. Web: <http://gardenersconfidence.com/plants/pink-pig-crapemyrtle>, accessed 6.24.2016

LAGE013 - *Lagerstroemia indica* 'Jinhuang' - 1.7 m tall x 1.8m wide (11 years), semi-dwarf, stems reddish-purple becoming grayish-brown. Leaves bright yellow (RHS 25A, 1A), some red in new tips, later more green, 3.3 - 5.3 cm long x 2.2 - 3.7 cm wide. Flower corolla deep pink (RHS N57B), panicle 9-18 cm long x 7.5-17 cm wide. Or: Institute of Botany, Jiangsu Prov. & Chin. Acad. Sciences, sport 2003. Li: Wang, Shu'an. 2016. HortScience 51: 595-6. First known cultivar in species to have golden or yellow leaf color.

LAGE014 - *Lagerstroemia indica* BLACK SOLITAIRE® Group - Leaves dark blackish-purple, near black when mature. registrations of the individual cultivars will be split at a future time.

LAGE015 - *Lagerstroemia indica* WITH LOVE® VIRGIN 'Milabla' - habit compact, 60cm tall x 40cm wide, useful for flowering shrub borders. Flower corolla pure white, pedicel red showy. Leaves dark green. Pat: Euro PBR 20141482. Or: Piero Frangi, Italy. In, ph: <https://www.plantipp.eu/en/Plants/lagerstroemia-indica-with-love-virgin-milablapbr-2/>, accessed 10.11.2016

LAGE016 - *Lagerstroemia* ENDURING SUMMER™ RED 'PIILAG-V' - <http://www.gardendebut.com/index.cfm/fuseaction/plants.kwsearchpost/variety/Lagerstroemia/index.htm>, accessed 10.12.2016

LAGE017 - *Lagerstroemia* ENDURING SUMMER™ FUCHSIA 'PIILAG-III' - <http://www.gardendebut.com/index.cfm/fuseaction/plants.kwsearchpost/variety/Lagerstroemia/index.htm>, accessed 10.12.2016

LAGE018 - *Lagerstroemia* ENDURING SUMMER™ LAVENDER 'PIILAG-IV' - <http://www.gardendebut.com/index.cfm/fuseaction/plants.kwsearchpost/variety/Lagerstroemia/index.htm>, accessed 10.12.2016

LAGE019 - Lagerstroemia ENDURING SUMMER™ PINK 'PIILAG-II' - <http://www.gardendebut.com/index.cfm/fuseaction/plants.kwsearchpost/variety/Lagerstroemia/index.htm>, accessed 10.12.2016

LAGE020 - Lagerstroemia ENDURING SUMMER™ WHITE 'PIILAG-I' - <http://www.gardendebut.com/index.cfm/fuseaction/plants.kwsearchpost/variety/Lagerstroemia/index.htm>, accessed 10.12.2016

LAGE021 - Lagerstroemia DRURY CRIMSON™ 'GV1125' - <http://www.gardendebut.com/index.cfm/fuseaction/plants.kwsearchpost/variety/Lagerstroemia/index.htm>, accessed 10.12.2016

LAGE022 - Lagerstromia 'Ebony Fire' - <http://www.gardendebut.com/index.cfm/fuseaction/plants.kwsearchpost/variety/Lagerstroemia/index.htm>, accessed 10.12.2016

LAGE022 - Lagerstromia 'Ebony Embers' - <http://www.gardendebut.com/index.cfm/fuseaction/plants.kwsearchpost/variety/Lagerstroemia/index.htm>, accessed 10.12.2016

LAGE022 - Lagerstromia 'Ebony Flame' - <http://www.gardendebut.com/index.cfm/fuseaction/plants.kwsearchpost/variety/Lagerstroemia/index.htm>, accessed 10.12.2016

LAGE022 - Lagerstromia 'Ebony and Ivory' - <http://www.gardendebut.com/index.cfm/fuseaction/plants.kwsearchpost/variety/Lagerstroemia/index.htm>, accessed 10.12.2016

LAGE022 - Lagerstromia 'Ebony Glow' - <http://www.gardendebut.com/index.cfm/fuseaction/plants.kwsearchpost/variety/Lagerstroemia/index.htm>, accessed 10.12.2016

LARI001 - *Larix kaempferi* 'Stiff Weeper' (Esveld Nursery) - legacy name, registration requested

LARI002 - *Larix laricina* 'Emerald Curtain' - dwarf, weeping, usually grafted high to cascade down. Found at the Memorial University Botanical Gardens, Newfoundland. Introduced Iseli Nursery 2014.

LARI003 - *Larix kaempferi* 'Paper Lanterns' - 8-10 ft. tall x 3-4 ft. wide (10 years), narrowly upright, slightly twisted branches and branchlets. Needles showy yellow to orange in fall. Female strobili abundant, appearing as many papery, thin-scaled in dark orange to dark red tones, hence lantern-like in appearance. Selected by Ed Wood.

LARI004 - *Larix laricina* 'Iron Rod' - vigorous, fastigate to columnar, foliage blueish-green. In: <http://www.coniferkingdom.com>, accessed 10.12.2016

LARI005 - *Larix sibirica* OASIS™ 'Durcarl' - 40 ft. tall x 25 ft. wide densely ovoid to narrowly pyramidal, very neat, much denser and refined for this species. Leaves bright green, holding the green shades longer into the fall than typical seedlings, turning rich amber-gold shades in fall, reliably showy. Ch: USDA 1b. Or: Rick Durand, Prairie Shade Nursery, Manitoba, Canada.

LAUR001 - *Laurus nobilis* EMERALD WAVE® 'Monem' - 12-15 ft. tall at fist, later to 20-35 ft. compact, pyramidal. Leaves narrower, distinctly linear-lanceolate to narrowly linear-elliptic, very undulate, 7-12 waves per side, apex narrowly acute to acuminate, appearing sharper than typical. In: Monrovia Nursery.

LAUR002 - *Laurus nobilis* LITTLE RAGU™ 'MonRik' - 6-8 ft. (10 years), smaller. Leaves brighter green, finely undulate, more showy than typical blades, "fabulous fragrance". In: Monrovia Nursery. Ns: name cannot be considered an infringement in any way on the famous pasta sauce maker's name as the term "ragu" is a long-existence culinary term for sauce that contains bay leaves and other herbs.

LAUR003 - *Laurus nobilis* 'Bay Junior' - compact, slower habit. Leaves medium to wide elliptic, well-scented.

LAUR004 - *Laurus nobilis* 'Brilliant Times' - stems of reddish at first, contrasting, showy. Leaves bright yellow, new growth faintly tinged red on the margins, later yellowish-green. Or: Japan.

LAUR005 - *Laurus nobilis* 'Chicester' - leaves mottled and sectored, sometimes marginally spotted white to cream. Leaves narrowly elliptic to linear-elliptic similar to an 'Angustifolia' with a chimera.

LAUR006 - *Laurus nobilis* 'Goldstein' - leaves slightly undulate, whitish midrib.

LAUR007 - *Laurus nobilis* 'Hex Brilliant' - leaves irregularly margined white to cream, usually a very thin margin, sometimes mottled too, irregularly twisted, very asymmetrical, often appearing deformed as with variegated *Ardisia* blades.

LEUC001 - *Leucothoe fontanesiana* WHITEWATER® 'HOWW' - 2-3 ft. tall x 4-5 ft. wide, slightly more compact and slower than species. Leaves thinly margins white, tinged bronzy-red in the new growth, chimera about 3-5% blade surface, this color sometimes as 2-3 small sectors from the apex into the blade but the sport is largely marginal in position. Or: Bob Head, Head Ornamentals, USD Patent #18396.

LEUC002 - *Leucothoe fontanesiana* 'Little Flames' (Esveld Nursery) - 50cm tall x 30cm wide, dwarf, compact, suitable as a colorful hedge. Leaves very bright red in new growth, later more medium to pale green. Cold hardy to -20 deg. C. Eur. PBR 20110116 to Boomkwekerij van Opstal, Zundert.

LEUC003 - *Leucothoe keiskei* BURNING LOVE® 'Opstal50' - 30-40cm tall x 30-60cm wide, low, compact, much smaller and neater than older 'Royal Ruby' with similar new growth colorations. Leaves rich burgundy red to bright medium red in new growth, seemingly longer, more narrower and more acuminate than some species variants, blades maturing to rich medium to dark green. Flowers generally not showy. Ron van Opstal, Zundert hybrid, introduced 2013. Eur PBR 20131363.

LEUC004 - *Leucothoe keiskei* LEAFSCAPE™ BURNING LOVE® "Opstal50" - 30-40cm tall x wide, new growth very bright yet rich burgundy red to dark violet-red. Or: Boomkwekerij van Opstal, Zundert, Eur. PBR

LEUC005 - *Leucothoe fontanesiana* LEAFSCAPE™ 'Little Flames' - leaves sharply acute to acuminate, sharper than species, very intense bright red in new tips, slowing becoming more bright green, then finally bright green. Or: Boomkwekerij van Opstal, Zundert, Eur. pbr GRANTED

LEUC006 - *Leucothoe keiskei* HALLOWEEN 'Opstal16' - 75cm tall x 25cm wide. Leaves more narrow than typical, giving a finer texture, new growth rich bronzy-orange to dark orange, becoming typical green. Or: Ron van Opstal, Zundert, Netherland, Eur. PNBR granted.

LEUC007 - *Leucothoe* 'Red Rum' - 16 in. tall x 18 in. wide, erect, ovoid, leaves highly rugose, twisted, irregular, rich bright red at first, later a very dark green.

LIGU001 - Ligustrum GOLDEN TICKET™ (Spring Meadow Nursery) - a super gold privet that is also seedless and thus never L invasive. Bred by Dr. Tom Ranney, North Carolina State University.

LIGU002 - Ligustrum japonicum 'Harmony Dwarf' (Nurseries Caroliniana)



LIGU003 - Ligustrum sinense 'Sunshine' (JC Raulston Arboretum) - image above: copyright owned by and courtesy of Laurence C. Hatch, imaged at the JC Raulston Arboretum on April 28, 2016. Images are not part of OROC Data Sharing.

LIGU004 - Ligustrum japonicum 'Hirose' (Esveld Nursery)

LIGU005 - *Ligustrum japonicum* ARLEQUIN™ 'Briseize' - 2m tall x 1.5m wide, dense, compact. Leaves much longer, narrower, generally not flat, often slight folded up, more long acute than species typical, distinctly margined cream to light yellow (5-10% surface) tips slightly tinged pink to orange, yet not tricolored.

LIGU006 - *Ligustrum japonicum* COLUMBINE™ 'Briquinze' - much as 'Briseize' but new growth tips more pink, margins closer to white, having a similar narrow, sharp folded blade too. As COLUMBINE is a trademark name it does not fall within the cultivar naming guidelines to avoid using a genus name, common or Latin.

LIGU007 - *Ligustrum ovalifolium* NANTUCKET PRIVET™ 'Grenanpriv' - 10-15 ft. tall x wide, vigorous, semi-evergreen where hardy. Leaves dark green, yellowish-green below, pale green overall. USDA 5 hardy. Web: www.gardendebut.com, accessed 5.22.2016, https://issuu.com/gardendebut/docs/2016_catalog-online/1

LIGU008 - *Ligustrum delavayanum* 'Verstappen Gold' - Habit strong, vigorous, not dense. best is pruned regularly. Leaves irregularly margined golden yellow, becoming margined a paler creamy-yellow, chimera 30-50% at first, later more 20-35%. In, ph: <http://www.newplants.nl/en/planten/l/ligustrum-delavayanum-verstappen-gold/>, accessed 10.4.2016

LIGU009 - *Ligustrum ovalifolium* 'Green Diamond' - compact, 60cm growth a year possible at first, slower but steady, retrained form, generally erect to ovoid, suitable for large hedge. Leaves bright, medium green. Pat: Euro PBR CPVO #20152183 to Josa Selecties BV on September 18, 2015.

LIGU010 - *Ligustrum vulgare* STRAIGHT TALK™ 'Swift' - 10-12 fr. tall x 2 ft. wide, truly columnar. Leaves dark green. USDA 4. web: <http://www.firsteditionsplants.com/straight-talk-privet>, accessed 3.12.2017

LIGU001 - *Ligustrum ovalifolium* 'Green Diamond' - <http://www.grootgroenplus.nl/uploads/images/nieuwigheden/2015/Ligustrum%20ovalifolium%20%E2%80%99Green%20Diamond%E2%80%99.pdf>, accessed 5.11.2017

LIND001 - *Lindera umbellata* 'Togarashi' - leaves bright yellow, subtle green flecks and spots, this overlaid with orange and red tones in fall.. Registration based on specimen at the JC Raulston Arboretum and documented at <https://jcraultonarboretum.wordpress.com/2013/05/24/pic-of-the-day-lindera-umbellata-togarashi/>

LIQU001 - *Liquidambar styraciflua* 'Fame4ever' - leaves with narrower, longer lobes, thus more deeply lobed in appearance, rich dark red to dark purplish-red in autumn: Or: Roemer, Holland. In: Esveld Nursery among other European firms.

LIQU002 - *Liquidambar styraciflua* 'Worby Rose' (Esveld Nursery)

LIQU003 - *Liquidambar styraciflua* 'Oakville Highlight' - 15m tall x 4m wide, fastigiate. Flemings.co.au, accessed 4.12.2015.

LIQU004 - *Liquidambar styraciflua* 'Little Richard' - 4m tall, pyramidal, very compact, semi-dwarf to slower. Leaves rich red, sometimes with orange in fall, smaller than species typical, often more narrowly lobed and more coarsely dentate when young. Thought to be of Australian origin.

LIQU005 - *Liquidambar styraciflua* 'Summer Storm' - leaves blackish in late summer, remaining so into fall with inner, shaded blades in yellow to red shades

LIQU006 - *Liquidambar styraciflua* MILESTONE™ - 10-20 ft. tall x 6-8 ft. wide, semi-dwarf, subglose to short ovoid. Fruit absent (fruitless). Warren County Nursery.

LIQU007 - *Liquidambar styraciflua* 'Gold Beacon' - Habit slightly slower than species typical. Leaves light green at first, maturing to light yellow to golden-yellow, remaining so all summer, apparently the reverse of 'Shocking Gold' aka 'Shock Gold' which is more yellow becoming green, fall colors red to orange, hence not an anthocyanin deficient sport as many gold trees. Selected by Charles Allen, Green Biz Nursery, Fayetteville, NC USA. heritageseedlings.com, accessed 5.10.2015, asked by originator to market this for him. It is also sold by Forest Farm and Buchholz in 2015.

LIQU008 - *Liquidambar styraciflua* 'Naree' ('Naree Yellow') - leaves smaller than typical, fewer serrations than 'Gold Beacon' on preliminary evaluation, golden-yellow, fall colors orange, gold, and dark red. Australian origin. Forestfarm.com, accessed 5.11.2015. We found one Aussie grower (Kigi Gowers) in 2015 listing 11 year old stock so it must be at least that old.

LIQU009 - *Liquidambar styraciflua* 'Savill Torch' - intense, reliable shades of red, orange, and gold in fall compared to other plants nearby. Based on a notable tree at Savill Garden, Windsor Great Park, UK as seedling c. 1930-40's. It was removed after damage in 2002 but already grafted and now available in the European trade, not yet seen in US catalogs (May 2015).

LIQU010 - *Liquidambar styraciflua* 'Black Parking' - fall color a very rich, dark blackish-red.

LIQU012 - *Liquidambar styraciflua* 'Dark Autumn' - leaves very dark, rich burgundy-red to maroon-red in fall. In, ph: <http://www.esveld.nl/html/daen/l/lisdau.htm>, accessed 10.7.2016

LIQU013 - *Liquidambar styraciflua* 'Wintergreen' - leaves about typical, 5-lobed, basal lobes tending to be small, medium green with paler veins, petioles mostly yellow tinged red. The name does not imply a "winter green" or evergreen condition. In, ph: <http://www.esveld.nl/html/daen/l/liswin.php>, accessed 10.7.2016

LIQU014 - *Liquidambar formosana* 'Jinjue' - Twigs golden-yellow, showy, Leaves golden yellow in spring, later in mottled red shades. Or: Seedling Breeding Center of Ningbo Forestry Bureau, China. Web: http://en.cnki.com.cn/Article_en/CJFDTotol-LYKE201510020.htm, accessed 5.1.2017

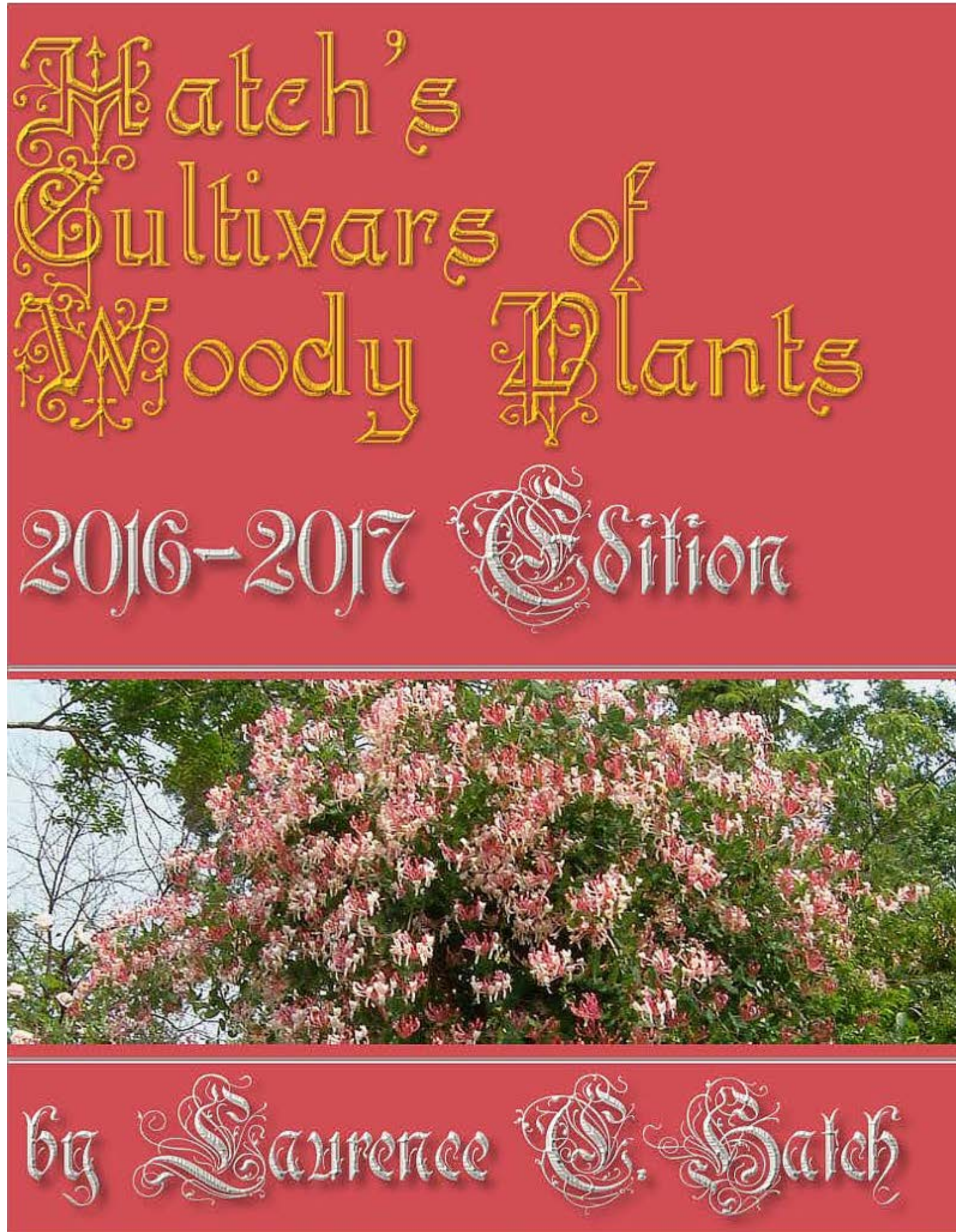
LIND001 - *Lindera umbellata* 'Togarashi' - leaves bright yellow, subtle green flecks and spots, this overlaid with orange and red tones in fall.. Registration based on specimen at the JC Raulston Arboretum and documented at <https://jcraultonarboretum.wordpress.com/2013/05/24/pic-of-the-day-lindera-umbellata-togarashi/>

LIRI001 - *Liriodendron chinense* 'J.C. Raulston' - Leaves 10-14 in. long, very massive for this genus, thicker darker green than some seedling, however more of a medium olive-green, midrib and half of secondary veins a paler, usually yellow shade, silvery-gray below, the dark upper surface contrasting nicely with the reverse quite unlike most anything from *L. tulipifera*.

LIRI002 - *Liriodendron tulipifera* EMERALD CITY™ 'JFS-Oz' (PDF data sheet, nursery website, J.F. Schmidt)

LIRI003 - *Liriodendron tulipifera* 'Edward Gursztyn' - 1.8m tall x wide (parent tree, 15 years), ;like 2-3m tall x wide in some decades, slower, compact to semi-dwarf, distinctly globose, very symmetrical crown, marketed as a street or small yard tree. Leaves close to species dimensions, some smaller, but not with thicker, reduced blades as 'Ardis'. Random seedling at Gursztyn Nursery, Braniewo, Poland.

LITS001 - *Litsea populifolia* ASIAN ESSENCE™ 'DJHC8059' - 18 ft. tall x 10 ft. wide, pyramidal, deciduous tree (as species), form upright open. Leaves aromatic (as species), decidedly rounded, suborbicular, petiole red, reminding me a bit like *Fagus sylvatica* 'Rotundifolia' or some *Cotinus*. Flowers yellow in small umbels (as species). USDA 7. Or: Dan Hinkley collected in western Sichuan. In: <http://www.monrovia.com/plant-catalog/plants/5877/asian-essence-litsea/>, accessed 8.2.2016



Hatch's Cultivars of Woody Plants is our nomenclatural standard for the 303 existing different cultivars in the genus *Lonicera*.

LONI001 - *Lonicera nitida* OPHELIA™ 'Brilliance' - 4 ft. tall x wide, low, compact, mounded to spreading, suitable for mixed borders and even rockeries. Leaves lime green to chartreuse, tinged more gold in stronger light, maturing to medium green, not a classic golden honeysuckle, not burning in strong sun. [US Patent #20761](#) to Andre Briant in 2010 as sport of 'Briloni' 2004.

LONI002 - *Lonicera sempervirens* RED CHARM™ 'Grendch' - Leaves "clean green", apparently slightly glaucous as the species. Flower corolla rich coral-red to scarlet-red, stamens very yellow to gold, much exerted and complimenting with contrast of hues. Introduced by Greenleaf Nurseries c. 2014.

LONI003 - *Lonicera pileata* LITTLE LEMON ZEST - details pending.

LONI004 - *Lonicera* CANDY SWIRL 'Inov41' - 8 ft. tall x wide, vinous, leaves dense, evergreen, resistant to blackspot, flowers pink and orange. USDA 5. Or: French Nat. Instit. Agri. Res. (INRA).

LONI005 - *Lonicera periclymenum* GROUNDHUGGER 'INO205' - 48-60 in. tall x 72 in. wide if grown as mounded shrub or low maintenance ground cover, flowers white, yellow, and violet-pink at once. US Plant Patent #25702

LONI005 - *Lonicera japonica* 'Gold Nancy' - leaves uniformly "warm golden on orange-red stems", flowers typical. www.cistus.com, accessed 3.29.2016, their own introduction, sport of species found there, named for their friend Nancy Goldman of Portland.

LONI006 - *Lonicera acuminata* 'Green Junkie' - Very vigorous. Flower corolla mostly pink from redder buds, showy. This cultivar is being promoted as a "pollution absorber" to remove urban toxins such as nitrogen dioxide, carbon dioxide, and even particulates due to larger, more hairy leaves in its genetics. The biomass which absorbs the material is then harvested for other purposes, the main plant continuing to regrow and repeat the cleansing process in spaces where trees cannot scrub the atmosphere. A massive pollution absorbing park aka "green corridor" is planned for Amsterdam with this as one of the central taxa. Pat: Euro PBR CPVO #20151750 on July 24, 2015 by Ed Bertoen. Youtube: <https://www.youtube.com/watch?v=Rn8K0RnA9vU>, accessed 10.15.2016

LORO001 - *Loropetalum chinense* var. *chinense* 'Tokyo Weeping' - 4-5 ft. tall x 4-6 ft., weeping to low-spreading, best raised as a high-grafted lant unless you wish a low, procumbent creeper or mound. Leaves medium green, not generally dark as new cultivars. Flowers creamy-white, fairly typical of species in tone and abundance.

LORO002 - *Loropetalum chinense* var. *rubrum* PURPLE PIXIE®. This is almost certainly the best of the low, very dark purple mounds and spreaders (this November 2014 at least) in terms of long-term density, tiny textured foliage, and persistence of the color into summer. The jury, at least for me, is out on the flowers as they seem to be sporadic and oddly distributed (magenta as with var. *rubrum*) on the foliage and not strictly necessary for a good display. The foliage and form are so near perfect here, though sufficiently variable plant to plant not to be dumb, resembling domes, flowers are just a glowing icing the already lovely cake. Here is a fine example of very useful Asian genetics made much more interesting and creatively lovely by persistent American breeding over these last 30 years or so since var. *rubrum* came to our shores.

LORO003 - *Loropetalum chinense* var. *rubrum* 'Plum Glamorous' - shorter, compact. Leaves very dark plum-purple (187B). Flower tepals bright plum-pink (RHS 187D), not magenta. Plant Growers Australia, intro. 2012, as cross of 'China Pink' x 'Daybreak's Flame' in 2007.

LORI004 - *Loropetalum chinense* GARNET FIRE™'sPg-3-017' - 4-5 ft. tall. Leaves dark burgundy-purple from maroon red tips, color lasting all summer. Flowers reddish-magenta to reddish-pink, not harsh as some magenta clones. In: Greenleaf Nursery

LORI005 - *Loropetalum chinense* 'Cherry Blast' - 6 ft. tall x wide, vigorous yet dense over time. Leaves dark purplish-red. Flowers near true cherry red. (Greenleaf Nursery)

LORI006 - *Loropetalum chinense* 'Burgundy Blast' 6-8 ft. tall, outward-arching, vigorous. Leaves tips red to burgundy, becoming greenish-red, then finally reddish-green or green suffused red shades, one of the most green leaves known in a magenta-flowered clone. Flowers rich magenta-pink to hot pink, very numerous, covering branches, highly floriferous, giving a contrast of green and magenta like few other clones. In: Greenleaf Nursery

LORI007 - *Loropetalum chinense* JADE CONFETTI™ 'DSNH 1206' - 6-8 ft. tall x 4-6 ft. wide. Leaves palish green, shades of jade, sometimes suffused a paler green over medium, certainly not dark green under foliage is very mature, being a brighter foliage mass than modern dark green clones. Flowers white in dense heads, something like confetti clusters, these rarely open as species and most white cultivars, sometimes appear tufted. - In: Greenleaf Nursery

LORI008 - *Loropetalum chinense* 'Shang-Green' - 60cm tall, habit erect, dense, remains neat leaves green and smaller than typical, denser and more erect than 'Shang-White'. Or: US PPAF on 2.11.2016 to Robert E. Lee, Independence, Louisiana

LORI009 - *Loropetalum chinense* PURPLE DAYDREAM™ - 2-3 ft. tall x 3-4 ft. wide, mounded, dwarf, compact. Leaves dark maroon-red. Flower reddish-magenta. In: Southern Living Plant Collection, intro. 2016

LORI010 - *Loropetalum chinense* RED DIAMOND™ 'Shangri-Red' - 6 ft. tall x wide, "mid-sized" introduction, compact. Flowers "reddest blooms of all cultivars...deep, vivid red" (Southern Living). Leaves rich dark burgundy, purplish-red, color held all season, appears to have a semi-glossy finish. web: <http://southernlivingplants.com/new-introductions/plant/red-diamond-compact-loropetalum>, accessed 3.12.2017

LORI011 - *Loropetalum chinense* var. *rubrum* PLUM CUTIE™ 'PIILC-III' - 4.5 ft. tall x 7-8 ft. wide (years), mounded, compact, looser than CRIMSON FIRE per Dirr, <http://www.plantintroductions.com/loropetalumchinenseandvarrubrumchecklist.html>, flower tepals near true red, leaves rich reddish-purple, holding color slightly longer than CRIMSON FIRE per Dirr. Or: Plant Introductions Inc., intro by HGTV

LORI012 - *Loropetalum chinense* ROSY BABY™ 'PIILC-III' - 28 in. tall x 50 in. side, low-mounded, compact, dense, leaves dark plum purple, glossy, flower tepals pink. Or: Plant Introductions Inc., Georgia, USA

MAAK001 - *Maackia amurensis* MaackNIFICIENT® (J.F. Schmidt) - 30 ft. tall x 22 ft. wide, upright-vase form, decidedly more upright than typical (globose to subglobose-spreading), most vigorous clone known to J.F. Schmidt in their many years in tree growing and selection. Leaves green with silvery tints (apparently species typical). Cold hardy to USDA 3.

MAGN001 - *Magnolia* 'Fancy Dude', a gold-margined 'Big Dude' (Rare Find Nursery)

MAGN002 - *Magnolia* 'March Til Frost' (Rare Find Nursery)

MANG003 - *Magnolia laevifolia* 'Free Spirit' (Cistus Nursery, their 2013 introduction, still very rare)

MAGN004 - *Magnolia* 'Ginter Spicy White' ((*M. tripetala* 'Bloomfield' x *Magnolia* R20-1 (*M. sieboldii* x *M. ashei*)). Flowers tepals near white, fairly flat, narrowly obovate to broadly elliptic, rich lemon-mint scent of the spicy variety, Intro. Lewis Ginter Bot. Gard., Richmond, Virginia, USA c. 2012, bred by Bill Smith bef. 2010. To learn more about Bill's *Magnolia* breeding please view these videos:

MAGN005 - *Magnolia grandifolia* PURPAN® - very vigorous, said to be fastest clone known in Europe, up to 50cm a year growth once established. Leaves thinly rusty-tomentose below. Flowers 20-24cm wide, very well scented. While this name is new (about), it is said to be based on a vigorous clone from France known since 1735 in Toulouse, proving cold hardy over decades. The derives from a well-known French college of the same tree where and they feature the cultivar on their school website as Tree of the Year 2013. Their School of Agriculture registered the trademark. We currently believe this clone to more than a historical named stock (forbidden by the ICNCP) from a famous tree of no horticultural merit. Its vigor and large flowers along with cold survival suggest it does have potential garden merit and is not merely a name from a famous tree.

MAGN006 - *Magnolia* 'Canary Charm' - 8-10 ft., tall x 6-8 ft. wide (10 years). Flowers numerous, "consistent heavy bloomer each year", tepals light to light-medium yellow, paler yellow in warm weather, more dark on cold days, nicely scented. USDA 4, floral bud quite cold resistant. - Or: Dennis Ledvina as cross of *M. acuminata* x 'White Rose'. In: www.songsparrow.com, accessed 3.29.2016

MAGN007 - *Magnolia* 'Sunset Swirl' 10 ft. tall x 8-10 ft. wide (10 years). Flowers large, well-scented, tepals appearing to be a blend of cream, pink, and yellow, sometimes with

a salmon-pink look overall. in close inspection a creamy to yellow tepals very finely flecked and suffused in dark pink shades. irregular tulip form becoming a wide, swirling pinwheel of tepals. Or: David Ledvina, cross of 'Pink Royalty' x 'Daybreak'. In: www.songsparrow.com, accessed 3.29.2016

MAGN008 - Magnolia floribunda 'Fansipan Furry' - Leaves "wonderful reddish palmate foliage", later bronze, and finally green. Flowers white, aging to pink. In, or: www.crug-farm.co.uk, accessed 2.16.2016 as FMWJ13340, their own selected clone.

MAGN009 - Magnolia MERCURY™ 'NCMX1' - 25 ft. tall x 15 ft. wide, habit refined, upright, pyramidal, a true tree, strong central leader, suitable for street or specimen use. Flowers very late, up to a month after M. x soulangeana, avoid late spring frost damage, very large, tepals long, obovate, strap-like, reddish-magenta to near red in bud, opening more bright reddish-pink shades on the reverse, paler pink shades on the inside, eventually maturing to bright lavender-pink as the flower expands to show more of the paler inner tepal colors. Leaves dark green, clean in appearance, new growth often tinged purple to red, midribs paler and yellowish-green, adding some merit, certainly a very dark tree when in leaf only. Or: Tom Ranney, NC State University. In: J.F. Schmidt and Son Nursery, <http://www.jfschmidt.com/pdfs/mercurymagnolia.pdf>, Web: <https://www.ces.ncsu.edu/fletcher/mcilab/introductions/mercury-magnolia.html>.

MAGN010 - Magnolia virginiana GREEN MILE™ 'MVHH' - habit more erect, neater, evergreen, flowers most of summer. Leaves more glossy than some clones and appears more sharply acute as well. Or: Alex Neubauer, Hidden Hollow Nursery, Tennessee.

MAGN011 - Magnolia kobus MARACZI 'Isis' - 5-10 m tall x 2-3 m wide, narrowly erect, new twigs more yellow, showy in winter. Leaves rusty-colored becoming green. Flowers at 3-4 years, much as species with 6 tepals in pure white, stamens pink. Pat: Euro #29997

MAGN012 - Magnolia sieboldii 'Pride of Norway' - 15 ft. tall x 10 ft. wide. Flowers down-facing as some species variants, 9-10 tepals, substantial feel (perhaps thicker tepals), white as species but larger (up 6-7 inches), stamens distinctly dark pink. Or: Dr. August Kehr, self of Genesis', named in honor Norwegian plantsman Olav Kalleberg. Gen: thought to be a polyploid but tested for diploid .

MAGN013 - Magnolia sieboldii 'White Flounces' - flowers an a open double, flat at maturity, perhaps 20 tepals or more. In: Harry Heineman, Massachusetts, USA.

MAGN014 - Magnolia liliiflora 'Raven' - Flower tepals very dark, rich purple, more white inside, lemony scent. or: Korea. web: <http://www.panglobalplants.com/plants-for-sale/shrubs/M/4/>, accessed 3.12.2017

MAGN014 - Magnolia sprengeri 'Marwood Spring' - Flower tepals dark reddish-purple outside, creamy-white tinged purple inside, to 15cm wide, floriferous. Or: Marwood Hill, Devon, England.

MAHO001 - Mahonia BLACKFOOT® 'Bokrafoot' - 60cm tall, ground cover function, very compact. Flowers in dense heads, yellow, very showy. Leaves evergreen, dark glossy dark green, purplish in winter. Or: bred from M. repens and much improved from the species typical.

MAHO002 - Mahonia SIOUX® 'Bokrasio' - 60 cm tall, low-spreading. Flowers densely formed in golden-yellow panicles. Leaves dark green, glossy, purple tinged in winter. Rust resistant. (Esveld Nursery)

MAHO003 - Mahonia 'Soft Touch' - legacy entry, previous described.

MAHO004 - Mahonia confusa INDIGO FLAIR™ 'S-fg-3-018' - 3-4 ft. tall x wide, compact, subglobose. Leaves bluish-green. Flowers, fruit abundant. Web: www.gardendebut.com, accessed 5.22.2016, https://issuu.com/gardendebut/docs/2016_catalog-online/1

MAHO005 - Mahonia 'Marvel' - flower heads very large in massive whorls, typical yellow. Leaves dark green, notably "frond-like", blades appear to be somewhat short and narrow from the images. In: Southern Living Plant Collection, intro. 2016.

MAHO006 - Mahonia 'Pans Peculiar' (M. declouxiana x M. japonica) - leaves short, congested, arch down in distinct units or hummocks. Flowers light yellow, nicely scented. web: <http://www.panglobalplants.com>, accessed 3.12.2017

MALU001 - Malus AMERICAN SALUTE™ 'Amsalzam' - 18 ft. tall x 10 ft. wide, upright, not spreading wid with old age, forms high calipers in nursery fast than most other crabs, flower corolla rose-red, leaves dark maroon to dark green, fruit cherry red, 3/8 in. wide, persisting longer, hardy to USDA 4, high pest resistance. Or: Lake County Nursery, Perry, Ohio, USA.

MALU002 - Malus AMERICAN SPIRIT® 'Amerspirzam' - 15-18 ft. tall x wide, globose, flowers single, corolla rose-red, leaves green, fruit 0.5 in. wide, bright cherry red, highly persistent, hardy to USDA 4, considered a replacement for the older 'Radiant' and similar clones. Or: Lake County Nursery, Perry, Ohio, USA.

MALU003 - Malus AMERICAN TRIUMPH™ 'Amertrizam' - 20 ft. tall x 10-12 ft. wide, columnar, erect, recommended as single trunk or clump-form production, flowers single, corolla rich pinkish-red, dark burgundy stamens intensify the color effect, fruit dark burgundy-red, leaves reddish-purple, hardy to USDA 4, high disease resistances (not specified). Or: Lake County Nursery, Perry, Ohio, USA.

MALU004 - Malus CINDERELLA® 'Cinzam' - 6-8 ft. tall x 5 ft. wide, dwarf to semi-dwarf, very dense, compact, ovoid, erect, flowers single, white from reddish buds, fruit 3/8 in. wide, golden-yellow, leaves green, hardy to USDA 4. Disease and salt tolerant. suitable for small properties and large containers. Or: Lake County Nursery, Perry, Ohio, USA. In: widely distributed by Monrovia Nurseries..

MALU005 - Malus sargentii 'KNI S-1' and also as 'Pendula', a post 1959 invalid Latin name. 2-3 ft. tall x 4-6 ft. wide as grafted, horizontalis to weeping, often in a flat mound. Offered by <http://www.klynnurseries.com>, 2013 Catalog/No Pricing, accessed 2.17.2016, their own introduction

MALU006 - Malus sargentii TINA'S BLUSH™ 'KNI B-1' - Offered by <http://www.klynnurseries.com>, 2013 Catalog/No Pricing, accessed 2.17.2016, their own introduction

MALU007 - Malus sargentii TINA'S CHARM™ 'KNI B-6' - Offered by <http://www.klynnurseries.com>, 2013 Catalog/No Pricing, accessed 2.17.2016, their own introduction

MALU008 - Malus sargentii TINA'S RUBY™ 'KNI B-6' - Offered by <http://www.klynnurseries.com>, 2013 Catalog/No Pricing, accessed 2.17.2016, their own introduction

MALU009 - Malus sargentii TINA'S WEEPER™ 'KNI B-9' - Offered by <http://www.klynnurseries.com>, 2013 Catalog/No Pricing, accessed 2.17.2016, their own introduction

MALU005 - Malus SPARKLING SPRITE™ 'JFS-KW207' - 12 ft. tall x wide, compact, dense, globose, summer foliage bright green, remaining clean and neat, flowers white from pink buds, fruit yellow to orange shades, 0.25 in. wide. Excellent scab, mildew, cedar-apple rust, and fireblight resistances. In, or: <http://www.jfschmidt.com/>, accessed

12.26.2016, 2016 intro

MALU006 - Malus x domestica 'Rosalie' - habit columnar, 2.8m tall x 0.4m wide, moderate vigor, ornamental. Flowers form shallow cup, petal ovate (not elliptic as parent 'Maypole'), petals overlapping, reddish-purple 9RHS 63A, below 63B becoming 63B to 63C), showy. Fruit 50-55mm wide (mean), 61g (mean weight), broadly globose-conical, medium red, red in flesh, weakly scented, not generally considered edible, larger than on most ornamental Malus, fruit persisting long than 'Maypole' parent. Scab resistant. Or, pat: US# 25501 on 5.5.2016 to J. Tupy, Otto Louda, and J. Zima, Insitute of Experimental Botany As, Czech Republic as 'Aneta' x 'Maypole' in 1994. Web: <https://www.google.com/patents/USPP25501>.

MALU007 - Malus RED OBELISK® 'Dvp Obel' - 3-5m tall x 2m wide at most, plants have been measured at 4m tall x 1.2 wide when young, compact, columnar to very upright, very narrowly pyramidal with some age. Flower buds magenta pink, later medium to light pink, opening near white on the inner side, reverse may be white tinged pink for some time, sweet scent. Fruit conical, red, useful for crab apple jelly, not edible for fresh. Leaves 3-5 lobed, purplish-brown in tips, becoming dark green, fall color may contain yellow shade Or: Belgium. Web: <http://www.publicgreen.be/catalog/pdfuk/151.pdf>, accessed 8.6.2016

MALU008 - Malus hupehensis ARIE MAURITZ® - 7m tall, strong growing small tree, upright. Flowers light pink, opening pinkish-white. Resistant to scan and powdery mildew. Eval: highest rate crab apple in street tree use by Applied Plant Research, Wageningen University. In: <http://www.boot.nl/en/text/89/Trees>, accessed 8.6.2016, introduced in Holland about 2010. Web: http://www.greenkeeper.nl/upload/documenten/04._jan_p._mauritz_-_de_juiste_boom.pdf

MALU000 - Malus x atstringens EMERALD SPIRE® 'Jefgreen' - 16 ft. tall x 8 ft. wide, more narrowly columnar as young plants. Leaves silvery-green, very disease resistant. Flowers dark pink, abundant. Fruit red, very show. Or, pat: US#23863 to Jeffries Nursery.

MELIA001 - Melia azedarach f. umbraculifera 'Caroline' - as the forma, 10 ft. tall x 8 ft. wide bvut grafted from superior selection for uniformity. Flemings.co.nz, accessed 4.24.2015

MELIA002 - Melia azedarach 'Lilac Lady' - flowers more abundant. Leaflets distinctly incised to 3-7mm deep, thus irregular serrate to sharp-dentate. Flemings.co.nz, accessed 4.24.2015

MELIA003 - Melia azedarach 'Elite' - non-fruiting clone. Metropolitan Tree Growers, New Zeand bef. 2015

MELIA004 - Melia azedarich 'Alzentina White' - Leaves heavily sectored white to cream, chimera 35070% of the surface, based on Ryochiku images the markings appear to be large, bolder sectors than 'Jade Snowflake' but comparative trials are still needed. So: <http://ryochiku-plants.jp/pb/4114/>, accessed 4.28.2017

MELIA004 - Melia azedarich 'Romaneti' - leaves birhgt yellow at first, later more chartreuse to yellowish-lime. Yellow-shoot shoots are common in this species but most are merely dying limbs or nutrient deficient ones. In the 1980's a couple of curators tried to root several of these at the Raulston Arboretum's prophouse. None proved true yellow. Based on these photos, the clone here appears to be all yellow, large, and stable. So: <http://ryochiku-plants.jp/pb/4126/>, accessed 4.28.2017

META001 - Metapanax delavayi 'Stout' - erect, strong, perhaps sturdier clone, "rather thickened compound leaves, more schefflera-like than it's brethren" in the same seed bed. www.cistus.com, accessed 3.29.2016, their own clonal selection from seed

Hatch's Cultivars of Woody Plants is our nomenclature standard for 41 previously known cultivars in Metasequoia

METAS001 - Metasequoia glyptostroboides JADE PRINCE™ 'JFS-PN3Legacy'- 70 ft. tall x 25 ft. wide, upright, pyramidal, dense, upright branching is improved, along with a strong central leader. Leaves bright green, very lush and feathery, rusty orange in fall.

META002 - Metasequoia glyptostroboides 'Golden Guusje' ('Kools Gold') - leaves darker yellow than 'Ogon', more sun tolerant than it, and best with full sun for rich gold color. Nelis Kools, Bueme, Netherlands selection. Marketed in the US as 'Kools Gold' which so far is only used in cultivar form. It would be logical to make that name a trademark because a cultivar can have only one cultivar name but it can have other trademarked or marketing names.

META003 - Metasquoia glyptostroboides 'Hamlet' ('Hamlet's Broom')8 ft. tall x 6 ft. wide (many years), dwarf, from witches broom, compact overall but all mottled creamy-white, becoming more normal green by summer. In: www.iselinursery.com, online 2016-17 catalog, accessed 10.5.2016

META004 - Metasequoia glyptostroboides CHINA GROVE™ 'CP14C0792' - narrowly pyramidal, loose, erect, somewhat more dense. Leaves dark bluish-green, not a bright green shade. In: <http://www.hawksridgefarms.com/viewplant.php?id=2118>, accessed 10.7.2016

META005 - Metasequoia glytostroboides 'Blue-ish' ('Blue Dawn') - needles light bluish-green, fairly pale and glaucous for this species.

MICH001 - Michelia maudiae 'Jinxiu' - vigorous, crown spire-shaped, straight trunk, "branches are slightly flat and layered". Buds, young twigs, and leaves green below, lacking white powder or glaucescence. Or: Jiangsu Acad. For. as seedling. web: http://en.cnki.com.cn/Article_en/CJFDTotat-LYKE201609019.htm, accessed 4.29.2017

MICH002 - Michelia maudiae 'Mengyuan' - a listed name in China.

MICR001 - Microbiota decussata 'Carnival' ('Boyko's Variegated') - foliage mass mottled yellow to about 30% surface, some sections large, covering many secondary and tertiary shoots, interesting winter coloration, showing a patchwork of yellow and purplish-violet or yellow and bronzish-purple tones, a very unique combination for any conifer genus.

MICR002 - Microbiota decussata 'Clouded Carpet' - foliage mass mottled yellow, 25% surface or so, comparisions to 'Carnival' are not yet known.

MICR003 - Microbiota decussata 'Filip's Pretty Pride' - slowerr, compact, but not dwarf, foliage masses more symmetrical and uniform than species typical. Edwin Smit Conifers, their own selection, 2004, not widely seen until 2010's.

MORU001 - Morus alba 'Ho-O' - legacy registration requested, documented in Cultivars of Woody Plants prior to OROC initiation.

MORU002 - Morus 'Lincoln Trail' (Morus alba x ?) - very compact, low-spreading dome to fslightly flat-tiopped, multiple trunks. View website: http://www.montgomeryparks.org/activities/things_to_do/fall/documents/shf_presentation.pdf



MYRI001 - *Myrica cerifera* 'Soleil' (JC Raulston Arboretum). Image above taken at the Juniper Level Botanic Garden.

MYRI002 - *Myrica cerifera* 'Escarosa' - 16-20 ft. tall x 8-10 ft. wide, a strong, large form, thick with 8-14 breaks per major limb, these shoots mostly flush with the canopy. Leaves darker green. Selected by PGI from seed collected at Escartosa Bay. Pannhandlegrowers.com, accessed 4.9.2015.

NAND001 - *Nandina domestica* ALL-A-GLOW™ (Garden Debut)

NAND002 - *Nandina domestica* SASSY LADY™ (Garden Debut)

NAND003 - *Nandina domestica* BLUSH PINK™ (Southern Living)

NAND004 - *Nandina domestica* OBSESSION™ (Southern Living)

NAND005 - *Nandina domestica* FLIRT™ (Southern Living)

NAND006 - *Nandina domestica* 'Tuscan Flame' - 3-4 ft. tall x wide, semi-dwarf, more compact and thick than 'Moyer's Red' and less upright than it. Leaves with rich dusky red to rich coral-red new growth, later more green, showing some bright red most of the year, leaflets 6.0-8.5cm long x 3.5-6.0cm wide. Fruit red but generally obscured by the dense foliage.. Roots well from cuttings, often in 6-8 weeks. [US Patent #21940](#) to Robert John Tancredi, Salem, Oregon, USA in 2011 as sport of unnamed plant in 2000, licensed to [www.planthaven.com](#)

NAND007 - *Nandina domestica* 'Little Flick'

NAND008 - *Nandina domestica* ALL-A-GLOW™ 'BurgundyWine' - 3 ft. tall x wide, compact. Leaves bright burgundy to violet-red in spring, becoming green with maturity, often mottled green on red along the midrib and base before becoming green, leaves very narrow, linear-elliptic to linear. Web: [www.gardendebut.com](#), accessed 5.22.2016, https://issuu.com/gardendebut/docs/2016_catalog-online/1

NAND009 - *Nandina domestica* BONFIRE™ 'NanSid6' - Pat, Or: Gurjit Sidhu, Mission, British Columbia, Canada, Can Plant Patent applied for on 4.26.2016 as 16-8903

NAND010 - *Nandina domestica*™ 'NanSid3' - Pat, Or: Gurjit Sidhu, Mission, British Columbia, Canada, Can Plant Patent applied for on 4.26.2016 as 16-8902

NAND011 - *Nandina domestica* f. *leucocarpa* BRIGHTLIGHT™ 'Selten004' - 1.5m tall x 50cm wide, upright, compact. Leaves bright chartreuse to lime at first, later more light to medium green, "elegant shape", leaflets appearing to be slightly folded upward. Fruit cream to light yellow. Pat: Euro PBR 43068. Aw: Gold Medal, GrootGroenPlus, The Netherlands. In, ph: <https://www.plantipp.eu/en/Plants/nandina-domestica-brightlight-selten004pbr-2/>, accessed 10.21.2016

NAND012 - *Nandina domestica* 'Twilight' - 50cm x 50 cm wide, dense, erect, sport of 'Gulfstream' and neat like it. Leaves mottled green and white, often near the margins

only, other times sectored, new growth being mottled pink as a classic tricolor, some bronze tints, chimera up to 80% of foliage in new tips, later much more green, chimera barely 5% then, one of the most colorful and highly marked of several known variegates in this genus. Petioles also pink, showy at times. Leaflets about 11 per leaf, 2.7cm long x 1.7cm wide. Pat, or: US# 26026 on October 27, 2015 to Neil Marek as 'Gulfstream' sport. at the a commercial lab in Magnolia, Texas. In, ph: <https://www.plantipp.eu/en/Plants/nandina-domestica-twilightpbr-2/>, accessed 10.21.2016

NYSS001 - *Nyssa sylvatica* AFTERBURNER® 'David Odom' (PDF data sheet, nursery website, J.F. Schmidt) - 35 ft. tall x 20 ft. wide, upright pyramidal to ovoid, more symmetrical and uniform than seedlings, straight central leader. Leaves bright green, very glossy, fall color reliably bright red with orange tints, showy, "burning brightly after most seedling tupelo have defoliated".

NYSS002 - *Nyssa sylvatica* FIRESTARTER (J.F. Schmidt)

NYSS003 - *Nyssa sylvatica* SNOW FLURRIES™ 'Gechrist' - leaves margined cream over lime at first, faintly tinged light orange, later maturing to medium green with near white edges, chimera about 10-15% surface, irregular depth and some in-sectoring or intrusions into the main blade, no major sectoring. Greenleaf Nursery Co. intro. 2011.

NYSS004 - *Nyssa sylvatica* TUPELO TOWER™ 'WFH1' - 30-40 ft. tall x 10-15 ft. wide, columnar to narrowly pyramidal. Leaves reliably coloring in fall. Cold hardy to USDA 4, one zone better than some southern-raised seedlings.

NYSS005 - *Nyssa sylvatica* 'Penwood Weeper' - 30-40 ft. tall x 20-30 ft. wide, distinctly weeping, forming a large tent over time, compared by some the aspect of a weeping cherry. Leaves yellow to orange in fall, showy. Female, fruiting. Founded by Stephen Foltz as 60-year old tree in Lakeside Park, Kentucky, USA.



NYSS006 - *Nyssa sylvatica* WHITE CHAPEL® 'Cherry Pie' - Narrowly pyramidal. Or: John Barbour of Bold Spring Nursery found in 2006 in Middle George a particularly bold, colorful tree with intense, red fall coloration, showing rich rose-red tones from top to bottom of the canopy, based on US Patent images, the blade is much longer than other cultivars. In: www.boldspring.com, accessed 2.28/2016, new for 2016, website accessed again on 10.22.2016 and shows "available May 2017". **Image above from US Patent Application.**

NYSS007 - *Nyssa sylvatica* 'Isabel Grace' - weeping. Leaves rich, dark red in fall, 11.0cm long x 4.0cm wide, margin tinged red at times.

NYSS008 - *Nyssa sylvatica* GREEN GABLE™ 'NSUHH' - 50 ft. tall x 25 ft. wide, upright and pyramidal, "extremely uniform branching", leaves glossy green, rich and bright red shades in fall. Or: Alex Nrubauer selected from superior stock. Pat: US# 22591

OLEA001 - *Olea europaea* 'Mediterranean Midget' -1.0-1.5m tall x wide, very compact, used as a hedge. Fruit absent, valued as foliage plant only. Leaves silvery-green, showy.



ORIX001 - *Orixia japonica* 'Pearl Frost' - image above courtesy of Laurence Hatch.

OSMA001 - *Osmanthus fragrans* f. *aurantiacus* 'Apricot Echo' (Nurseries Caroliniana)

OSMA002 - *Osmanthus heterophyllus* PARTY LIGHTS™ (Greenleaf)

OSMA003 - *Osmanthus x fortunei* 'Ninth and Polk' (Cistus Nursery)

OSMA004 - *Osmanthus x fortunei* 'Yokoi' (Esveld Nursery)

OSMA005 - *Osmanthus armatus* 'Herkenrode' - highly incised, sharp teeth numerous. 4.12.2015



Osmanthus heterophyllus 'Hariyama'
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www.cultivar.org
Imaged at the JC Raulston Arboretum

OSMA006 - *Osmanthus heterophyllus* 'Hariyama' ('Hari Yama') is a semi-dwarf, slightly tufty and spiky thing that will need a bit of guidance (pruning, staking) to form a suitably dense and put-together foliage mass with age. It is essentially a more compact, shorter-bladed version of the now popular 'Sasaba'. We now lament that the larger clone can get a bit large (8-10 feet) and in the wrong context is going to become a hostile, unforgiving nightmare full of a thousand green daggers; an accident waiting to happen for man, child, and beast alike. 'Hariyama' should be a more manageable, even if less extreme, alternative. Note my US quarter to show the scale of the leaf clusters.

OSMA007 - *Osmanthus x fortunei* 'Pattys Secret' - habit a "large, tight, oval", leaves very dark green, numerous spinose teeth (10-16 per side), flowers very abundant, well-scented. In: www.boldspring.com, accessed 2.28/2016

OSTR001 - *Ostrya virginiana* SUN BEAM™ 'Camdale' - 30-38 ft. (35-40 years), oblong-pyramidal, slightly wider with age, more erect than typical as young trees. Leaves dark green in summer, reliably golden-yellow in fall, about 50% of leaves clinging to the tree in winter as coppery-brown hues. Selected from northern US populations by North Dakota State University, proven reliably cold hardy in USDA 3, introduced 2011.

OSTR002 - *Ostrya virginiana* FRIENDSHIP™ 'Frizam' - 30 ft. tall x 20 ft. wide, low canopy with about 4 ft. clearance to the ground. Leaves dark green, lemon yellow in fall. Lake County Nursery selection c. 2014.

OSTR003 - *Ostrya virginiana* AUTUMN TREASURE™ 'JFS-KW5' - 40 ft. tall x 20 ft. wide, reliably more narrow, overall upright-pyramidal to ovoid, more useful for narrow urban spaces including street tree applications. Leaves dark green, golden yellow in fall, fall leaves dropping cleanly and complete, not leaving brown old foliage in winter. J.F. Schmidt Nursery, 2015-16 introduction, their own selection.

--end of OROC Data Sharing

OSTR004 - *Ostrya virginiana* 'F.C. Moree' - pyramidal, regularly branched, branches mostly ascending at 30-45 degrees, wind resistant. Pat: Euro PBR# 44507, bred by Boomkwekerij t' Herenland vof
<https://www.plantipp.eu/en/Plants/ostrya-carpinifolia-f-c-moreepbr-2/>

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Imaged at North Carolina Arboretum
Asheville, NC



**Oxydendrum
arboreum
'Spiral Twist'**

OXYD001 - *Oxydendrum arboreum* 'Spiral Twist', not to be confused with *Nyssa sylvatica* 'Zydeco Twist', is a curious, spreading thing, likely greater beauty with time. [Click image if you will.](#) This image is not part of OROC Data Sharing.



Parrotia persica 'Keith Silver'

PARR001 - Parrotia persica 'Keith Silver' (NEW CULTIVAR NAME June 25, 2014) (Charles R. Keith Arboretum) - more upright, multiple trunks all crowded and erect, and bark in silvery, gray, and greenish-grey tones, lacking the browns, tawny, and flesh tones of most species material. **This plant is not named with permission of Dr. Keith or the recent (2015) collection owners at Pickeretum but it has widely been called by this name. To my our knowledge it has yet to be propagated but Dr. Keith told me that the esteemed Dr. Mike Dirr on a pilgrimage to this precious, sacred collection of 5000 different taxa did admire it.**



Parrotia persica 'Persian Lace'
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www.cultivar.org
Imaged at Juniper Level Botanic Garden

PARR002 - Parrotia persica 'Persian Lace' - legacy name, previous described. Registraton requested.

Parrotia persica 'Bella' (Bluebell Nursery) - same as 'Belle' of Junker's Nursery?

Parrotia persica 'Golden Belltowner' - neatly columnar over many years. Leaves golden-yellow to orange and yellow in fall, very showy.

PART001 Parthenocissus tricuspidata CALICO CAT™ (Upshoot) - a tricolored variegated, bright pink new shoots and older leaves green mottled in white bit. Photos show both compound and simple leaves.

PART002 Parthenocissus tricuspidata 'Grand Slam'. Habit vigorous, strong. Leaves richer red shades in fall than typical. Songsparrow.com, accessed 4.11.2015.



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PART003 Parthenocissus quinquefolia RED WALL™ blended nicely with PART 004 YELLOW WALL™. Click image to enlarge. Photo courtesy of and owned by www.provenwinners.com

PAUL001 - *Paulownia fortunei* 'Tiantong C22' - vigorous, thin lateral branches, low branch angles, straighter trunk, superior stem-joining architecture. Very high pest resistance and adaptability. Or: Jiangxi Acad. For., China through recurrent selection.. web: http://en.cnki.com.cn/Article_en/CJFDTotol-LYKE201607022.htm, accessed 5.1.2017

PHIL001 - *Philadelphus* 'Dainty Lady' - 2.5m tall x 1.5m wide, not dwarf, upright, narrowly spreading, more suitable for small gardens than older cultivars. Leaves narrowly ovate, green, tinged maroon at first. Flowers white, very numerous, very highly scented, calyx green to maroon, contrasting very nicely in young flowers, raceme inflor. 3.6cm long x 5.4 cm wide, individual flowers to 3.5cm wide. [US Plant Patent #24536](https://www.uspatent.com/patent/24536) to Peter R. More on June 10, 2014 as cross of *P. microhyllus* x *P. delvavyi* var. *calvescens* in 1995. In, ph: <https://conceptplants.com/varieties/philadelphus-x-dainty-lady/>, accessed 10.21.2016

Hatch's Cultivars of Woody Plants is our standard for 44 existing cultivars in the genus *Photinia*.

PHOT001 - *Photinia fraseri* MAGICAL VOLCANO 'Kolmavoca' - much as 'Red Robin' with dark glossy red new growth but adds a highly undulate, serrulate to Ilex-like spinose, toothy blade that provides more texture and interest. European trade c. 2000.

PHYSOC001 - *Physocarpus o.* AMBER JUBILEE™ (First Edition Plants)

PHYSOC002 - *Physocarpus opulifolius* LITTLE ANGEL™ 'Hoogi016' - young plants 50cm tall x 30 cm wide, very low, compact. Flowers near white. Leaves rich "wram red". Euro PBR 20141961 by G. Hoogenraad, Netherlands.

PHYSOC003 - *Physocarpus* GUMDROP™ BURGUNDY COTTON 'Podaras 1' - 48-60 in. tall x 36-50 in. wide. Habit compact. Mildew resistant. Leaves copper-red at

first, soon becoming dark burgundy red, red persisting until fall. Peter Podaras US Patent #22361. Ballseed.com, accessed 4.20.2015 under unknown species "Physocarpus hybrida", presumed here to be P. opulifolius.

PHYSOC004 - Physocarpus GUMDROP™ CARAMEL CANDY 'Podaras 2' - 24-30 in. tall x 36-4 in. wide. Habit compact. Leaves caramel brown becoming green in time, more persistent caramel tones. Peter Podaras US Patent #22363. Ballseed.com, accessed 4.20.2015 under unknown species "Physocarpus hybrida", presumed here to be P. opulifolius, sometimes on this on the website spelled CARMEL.

PHYSOC005 - Physocarpus GUMDROP™ LEMON CANDY 'Podaras 3' - 48-60 in. tall x 48-60 in. wide. Habit compact. Leaves bright yellow, becoming chartreuse or slightly greener, "freaky fluorescent gold" (BallHort), generally yellow shades persistent until fall. Peter Podaras US Patent #22362. Ballseed.com, accessed 4.20.2015 under unknown species "Physocarpus hybrida", presumed here to be P. opulifolius

PHYSOC006 - Physocarpus opulifolius 'Golden Anny' - leaves margined yellow and chartreuse and highly sectored as well, 50-65% surface, often just a small central tree of light green, or alternatively 2-3 small trees of that color along the major lobe axes, some plants, perhaps shaded ones appears nearly all chartreuse or all gold with only subtle markings. Selected by Jan and Anny Bos, Wilp, The Netherlands, Eur. PBR #33556.

PHYSOC007 - Physocarpus opulifolius MIDNIGHT™ 'Jonight' - 1.8 m tall x 1.5 m wide, medium growth rate, bushy. Flowers near white, contrasting much with the foliage. Leaves very dark blackish-purple to dark reddish-purple, much darker and less red than 'Diablo' or 'Mindia', the darkest known leaf color to date (May 2015). Fruits red, showing, contrasting also with flowers and foliage. Seedling of 'Diablo' by John Jones, Hybrid Plant Nurseries, England, Eur PBR 1574 in 2013.

PHYSOC008 - Physocarpus opulifolius RED ESQUIRE™ 'Gelesq' - 50cm tall x 30cm wide, dwarf to very compact, easy maintenance with generally no pruning, stems slightly brighter red than foliage, also showy. Leaves very dark burgundy red, becoming dark green tinged dark red. Pat: Euro PBR 20442. In, ph: <https://www.plantipp.eu/en/Plants/physocarpus-opulifolius-red-esquire-gelesq-pbr-2/>, accessed 10.21.2016

PHYSOC009 - Physocarpus opulifolius 'Satin Chocolate' - 48-60 in. tall x wide, subglobose or wider, stems reddish, can be showy. Leaves rich purple in new tips, quickly becoming very dark purple to purplish-green. Flowers pink in bud, opening to blush pink and white, bicolored at some phases of development. In: US trade c. 2011, not widely reported in literature or cultivar references.

PHYSOC010 - Physocarpus opulifolius FESTIVUS GOLD™ 'Bert Darts G' - 3-4 ft. tall x 4-5 ft. wide, compact, dense, compared to the standard 'Dart's Gold' this clone is more compact, thicker in stem, and more neat, also more compact than 'Nugget' which is also more arching and less mounded. Leaves rich golden-yellow in spring and summer. Dr: powdery mildew resistant, far more so than 'Dart's Gold' and 'Nugget'. Or, Pat: US#26246 to Gijsbertus Verhoef on 12.22.2015, seedling of 'Dart's Gold' in 2008, selected 2010. In: <http://springmeadownursery.com/plant/58580>, accessed 1.15.2017, with color images. Google Patent record: <https://www.google.com/patents/USPP26246?dq=physocarpus&hl=en&sa=X&ved=0ahUKEwjQiv6c1MTRAhUEzoMKHQjBCaQQ6AEIGjAA>

PHYSOC010 - Physocarpus opulifolius GINGER WINE™ 'SMNPOBLR' - 5-6 ft. tall, strong, compact, erect. Leaves rich orangish-red in new tips, later darker red shades with showy red petioles, "sparking burgundy" in autumn. Flowers in large heads, white. Fruit bright red, showy. High mildew resistance. Web, in: <http://springmeadownursery.com/plant/59060>, accessed 3.13.2017

PHYSOC011 - Physocarpus opulifolius CANARY CHEERS™ 'KLMZZ' - 6 ft. tall x wide (10 years), globose to subglobose, compact. Leaves bright yellow, best color in spring. Flowers light pink to white. Or: Selected by Roy Klemm, introduced at www.songsparrow.com in 2017.

Editor's Note: A very large number of Picea, Pinus, Taxus, Thuja, and other conifer brooms are faithfully and laboriously catalogued in the The Conifer Treasury 8.0 @ <http://www.conifertreasury.org> by Zsolt Mesterhazy, being especially rich in named clones of European introduction. This is a 100% free reference. More than 77 conifer originators and collectors contributed to this superb website, often with original images. Until such time as these numerous sports and brooms make it to the commercial trade or major collections (and we suspect most will not), we are declining to register them here and now. His reference is superb for those wishing to have knowledge of more than 16,000 cultivars not found in major conifer books and perhaps avoid reusing a name or two.

PICE001 - Picea engelmannii 'Albert's Cousin' ('Albert's Cousine') - more densely pyramidal, same form as the famous Picea pungens 'Fat Albert', hence appearing to be its cousin in another species. Selected by Paul Warnick, University of Idaho Arboretum.

PICE002 - Picea engelmannii 'Sweetwater' - narrowly columnar, hanging limbs.

PICE003 - Picea abies 'Catharine's Golden Heart' - 2 ft. tall x 3 ft. wide (10 years), mounded and spreading, not always dense. Leaves golden-yellow. Female strobili red, showy, borne on young plants. Selected by Bon Fincham.

PICE004 - Picea glauca 'Lion Mane' - 2-4 ft. tall x wide (10 years). Leaves typical bluish-green but brightly accented yellow. Josef Braeu found near the lion pen of an undisclosed zoo.

PICE005 - Picea glauca 'Achat' - as 'Conica' but more compact, slower, fine-textured, 2-4 in a year or less, and with pale yellow new tips which are green by early summer. Iseli Nursery, intro. 2014-15.

PICE006 - Picea glauca 'The Limey' - fairly typical, open pyramidal species form. Leaves with new tips bright lemon-lime, more yellow with age, interior a dark lime green, finally darker green. Iseli Nursery, intro. 2014-15.

PICE007 - Picea orientalis 'Firefly' - seedling of 'Skylands;', slower, more compact, smaller tree, same rich yellow softening to gold, finally a more green interior. Iseli Nursery c. 2014.

PICE008 - Picea pungens 'Avatar' - broadly upright, tiered branching. Leaves rich blue much as 'Moetheimii', from which it sprang as a seedling, slower growth than it also, and new needles in "soft blue powder puffs". Iseli Nursery, 2014-15.

PICE009 - Picea pungens 'Zafiro' - short, low pyramidal to wide beehive, 3-6 inches growth a year or less. Leaves rich light blue as 'Moerheimii' but on a slower plant. Iseli Nursery, intro. 2014-15.

PICE010 - Picea pungens 'Lenawee Light' - 7 ft. tall x 3 ft. wide (10 years). Leaves rich golden. Found by Ken Marek, Adrian, Michigan on neighbor Larry's Hubbard's property, named for their County. [conifertreasury.org](http://www.conifertreasury.org), version 7.0, 2015, accessed 6.2.2015.

PICE011 - *Picea pungens* 'Lake Bluff' - compact. Leaves shorter, distinctly grayish-blue. Found in Michigan by Mike and Cheryl Davison. conifertreasury.org, version 7.0, 2015, accessed 6.2.2015.

PICE012 - *Picea engelmannii* 'Blue Magoo' - 6 ft. tall x 4 ft. wide (10 years), narrowly pyramidal, tips distinctly drooping at long, new growth. Leaves in rich grayish-blue to silvery-gray colors. Found the introduced by Buchholz Nursery, bef. 2014.

PICE014 - *Picea pungens* 'Blue Wave' - Offered by <http://www.klynnurseries.com>, 2013 Catalog/No Pricing, accessed 2.17.2016, their own introduction

PICE015 - *Picea glauca* var. *albertiana* (Conica Group) 'Sun On The Sky' - 1 m tall (10 years), habit dense, slow, erect conical as Conica Group, new tips light yellow becoming light blue by summer. Or: sport of 'Sanders Blue'. In: Van Vliet New Plants 2016. Registration Note: OROC previously used PICE003 and PICE015 in error for the same cultivar 'Catherine's Golden Heart'. PICE015 has now been vacated and this new addition used to replace the earlier entry. Web: <http://www.grootgroenplus.nl/uploads/2016/noviteiten/Picea%20glauca%20%E2%80%98Sun%20on%20the%20Sky%E2%80%99.pdf>, accessed 5.11.2017

PICE016 - *Picea abies* (Rubra Spicata Group) 'Blaze' - 8 ft. tall x 6 ft. wide, dwarf to semi-dwarf, dense, upright. Needles with very bright red new growth (much as 'Rubra Spicata', a much larger tree), shorter than species typical, fading to reddish-brown and finally green by late spring. Or: Iseli Nursery, seedling of 'Rubra Spicata', more compact and shorter-leaved than it.

PICE017 - *Picea abies* 'Calvary' - 4 ft. tall x 8 ft. wide, spreading, nest-shaped, slight arching form, ground cover if mass planted. Needles bluish-green, resembling *P. pungens* but correctly assigned to this species. Or: Randy Dykstra and Chub Harper found at Mount Calvary Cemetery, Davenport, Iowa, USA.

PICE018 - *Picea abies* 'Jana' - 1.5 ft. tall x 1.5 ft. wide, extreme dwarf, miniature, "one of the slowest growing conifers we have in product line" (Iseli Nursery 2016-17), flattened globe, very dense, wider than tall. Needles very short. In: Iseli Nursery, accessed 10.20.2016

PICE019 - *Picea pungens* 'Avatar' - 20 ft. tall x 15 ft. wide, broadly pyramidal, tiered secondary limbs, slower than parent 'Moerheimii'. Needles "emerge as soft blue powder puffs", rich silvery-blue much. Or: Iseli Nursery as superior seedling of 'Moerheimii', their 2016-17 Catalog, accessed 10.18.2016

PICE020 - *Picea abies* 'Anitas Golden Cloak' - needles in rich yellow to golden shades. Or: Dave Olszyk, cross of 'Acrocona' x 'Golden Drift', named for his wife. So, in: <http://www.coniferkingdom.com/picea-abies-anitas-golden-cloak/>, accessed 10.22.2016, also sold by www.westernevergreen.com

PICE021 - *Picea abies* 'Filips Mystic Black' - narrowly pyramidal, slightly erect at first. Needles very dark blackish-green, as dark as occurs in this species. So, in: <http://www.edwinsmitsconifers.com/detail.asp?id=564>, accessed 10.22.2016

PICE022 - *Picea pungens* 'Filips Good Spirit' - pyramidal, rich blue color. <http://www.edwinsmitsconifers.com/detail.asp?id=2641>, accessed 10.22.2016

PICE023 - *Picea glauca* (Conica Group) 'Sun on the Sky' - 1m tall (10 years), habit as the group but new growth denser, compact, new tips pale yellow, turning more light blue to bluish-green, being a sport of 'Sanders Blue'. Or, in: <http://www.newplants.nl/en/planten/p/picea-glauca-sun-on-the-sky-pbr/>, accessed 10.16.2016

PICE024 - *Picea glauca* 'Fourth Hand' ('4th Hand') - 8 ft. tall x wide (10 years), virgate or snake-branched. Needles bluish-gray. So, in: www.stanleyandsons.com, accessed 10.21.2016

PICE025 - *Picea pungens* 'Sweet Roll' - 1 ft. tall x wide, dwarf, bun-shaped. Needles green, full-sized as species. Or: Jerry Morris. So, in: www.stanleyandsons.com, accessed 10.21.2016

PICE026 - *Picea pungens* 'Ruby Teardrops' - 3 ft. tall x wide (10 years), dwarf, irregularly subglobose, 2-4 inches growth a year. Leaves rich blue, showy. Cones at shoot tips a bright red to magenta in spring, very showy, contrasting with the glaucous blue foliage, showing this color for 3-4 weeks, later more tan in color. Aw: American Conifer Society, Collectors Conifer of the Year 2016.

PICE027 - *Picea abies* 'Dougart 12' - 2 m tall x 1.18 m wide (10 years), compact, pyramidal, more symmetrical, faster in growth (to 30 cm a year), and with a smaller branch diameter than 'Wills Zwerg'. Pat: US PP applied for on April 27, 2017 by Andy Domen, Wernhout, The Netherlands, as selected elite seedling.

Cultivars of Woody Plants is our standard reference for 122 previously published cultivars in Pieris

PIER001 - *Pieris japonica* 'Greprs' SOUTHERN LADY® - 4-5 ft. tall x wide. Flowers in pendulous panicles of white corollas, buds white not pink. Leaves rich, "shimmering" green, plants as a whole resistant to most damage including root rot and mites. Very adapted to southern US heat and humidity, hence the name. High propagation rate as cuttings (85-90%). US Patent #23584 on May 5, 2013 to Harry Smutzter and Mark Rainey, as open-pollinated 'Temple Bells' in 2008.

PIER002 - *Pieris japonica* IMPISH ELF™ 'Shy' - 3-4 ft tall x wide, compact. Stems dark red, showy. Leaves showy red in new growth. Flower corolla rich medium pink from dark purplish-pink buds, later in season. Bred by Sven Svenson, Oregon State University. Monrovia.com, accessed 4.24.2015, new 2015 intro.

PIER003 - *Pieris japonica* PASSION PARTY™ 'Passion' - legacy name, registration requested

PIER004 - *Pieris japonica* PASSION PARTY™ 'Pink Passion' - legacy name, registration requested

PIER005 - *Pieris japonica* PASSION PARTY™ 'Passion Frost' - legacy name, registration requested

PIER006 - *Pieris japonica* PASSION PARTY™ 'Pink Frost' - legacy name, registration requested

PIER007 - *Pieris japonica* GAY GOBLIN™ 'Cabernet' - leaves bronze-tinged in new tips. Flowers rich rose-red in corolla, calyx paler, pinkish to near white, contrasting much, inflor. very large, cascading. In: Monrovia Nursery, 2015, <http://www.monrovia.com/plant-catalog/plants/3774/gay-goblin-lily-of-the-valley-shrub-enchanted-forest-collection/>, accessed 1.15.2017

PIER008 - *Pieris japonica* SUNSPRITE™ 'Sincere' - leaves bright red in new tips, showy, "fiery red". Flower corolla rich dark pink n bud, opening to near white, lasting up to 5 weeks. Or: Svan Svenson, as hybrid. In: Monrovia Nursery, <http://www.monrovia.com/plant-catalog/plants/3730/sunsprite-lily-of-the-valley-shrub-enchanted-forest-collection/>, accessed 1.15.2017

PIER009 - *Pieris japonica* SMOLDERING WHITE™ 'Fire N Ice' = new growth bright pinkish-red, becoming dark green margined cream to white, chimera wider than old

'Variegata' (5-12%), flowers white, pendulous heads, numerous. In: Home and Garden TV to US trade, intro 2014

PINU001 - Pinus nigra 'Komet' (Iseli Nursery, commercial website, article)

PINU002 - Pinus parviflora 'Ooh La La' - compact, dense, globose. Leaves bright blue as parent 'Glauca'. Mike and Cheryl Davison found as broom of 'Glauca' at an arboretum in Yakima, Washington, USA. Conifertreasury.org, version 7.0, accessed 5.29.2015.

PINU003 - Pinus resinosa 'Dodge Ball' - dense, globose, growth rate 1-3 in. a year. Leaves light green, shorter, and more softer in texture than species typical. Or: Dennis Dodge, found as broom. So: <http://www.coniferkingdom.com>, accessed 5.16.2016

PINU004 - Pinus strobus 'Blue Petticoats' - narrowly weeping. Leaves bluer than 'Pendula, long. Or: Jim Boyko, Boyko, Nursery as 'Pendula' seedling. So: <http://www.coniferkingdom.com>, accessed 5.16.2016

PINU005 - Pinus strobus 'Blue Tresses' - Similar to 'Blue Petticoats'. So: <http://www.coniferkingdom.com>, accessed 5.16.2016

PINU006 - Pinus banksiana 'Skjak Flach' - dwarf, spreading, slow, uniform. Leaves rich dark green. So: <http://www.coniferkingdom.com>, accessed 10.20.2016 noting it is not a P. sylvestris as sometimes listed elsewhere.

PINU007 - Pinus balfouriana 'Golden Trout Lake' - So, in: <http://www.buchholznursery.com>, accessed 10.20.2016

PINU008 - Pinus cembra 'Tip Top' - 6 ft. tall x 3 ft. wide (10 years), dense, erect, narrowly pyramidal to columnar, perhaps conical in time. Leaves silver-green to silvery-blue, new growth bright green and contrasting to more silvery mature needles. Or: Johnson Nursery, Wisconsin, USA. - So, in: <http://www.buchholznursery.com>, accessed 10.20.2016

PINU009 - Pinus cembra 'Twister' - 6 ft. tall x 3 ft. wide (10 years), slow, columnar, branch terminals slightly twisted. Leaves silver-bluish-green. - So, in: <http://www.buchholznursery.com>, accessed 10.20.2016

PINU010 - Pinus contorta 'Mount Hood Variegated' - 7 ft. tall x 3 ft. wide (10 years), slower, pyramidal, perhaps irregular and open at first. Needles irregularly patched in lemon yellow throughout the canopy. Or: Dan Luscombe found on Mt. Hood, Oregon USA. - So, in: <http://www.buchholznursery.com>, accessed 10.20.2016

PINU011 - Pinus densiflora 'Griffens Prostrate' ('Griffens Prostrata' post-1959, invalid Latinized form) - 1 ft. tall x 3 ft. wide (10 years), low, groundcover form. Needles bright green, long. - So, in: <http://www.buchholznursery.com>, accessed 10.20.2016, as 'Griffen's Prostrata'

PINU012 - Pinus densiflora (Oculis-draconis Group) 'Pope' - needles mottled in green, yellow, and pink. Or: seedling of 'Oculis-draconis'. - So, in: <http://www.buchholznursery.com>, accessed 10.20.2016

PINU013 - Pinus flexilis 'Kinzie Rose' - 1 ft. tall x 1.5 ft. wide (10 years), dwarf, very dense, subglobose. Needles short, bluish-green. Or: Jerry Morris as broom in southern Utah, USA. - So, in: <http://www.buchholznursery.com>, accessed 10.20.2016

PINU014 - Pinus flexilis 'Suzys Softly' - - So, in: <http://www.buchholznursery.com>, accessed 10.20.2016

PINU015 - Pinus nigra 'Marks Sparkler' - needle sections heavily mottled yellow up to 50-70% surface. So, in: <http://www.buchholznursery.com>, accessed 10.20.2016, introduced by Collector's Nursery in 2003.

PINU016 - Pinus ponderosa 'Bushs Weeping' - pyramidal with lower limbs drooping and hanging horizontal and downward. So, in: <http://www.buchholznursery.com>, accessed 10.20.2016

PINU017 - Pinus strobiformis 'Suzys Duzy' - So, in: <http://www.buchholznursery.com>, accessed 10.20.2016

PINU018 - Pinus strobiformis 'Winter Sun Raye' - - So, in: <http://www.buchholznursery.com>, accessed 10.20.2016, also offered by www.brokenarrownursery.com

PINU019 - Pinus sylvestris 'Trolguld' - needles bright chartreuse to yellow. - So, in: <http://www.buchholznursery.com>, accessed 10.20.2016

PINU020 - Pinus flexilis 'Southbridge' - needles in the canopy mottled yellow bright golden-yellow at about 40% surface. So, in, ph: <http://www.coniferkingdom.com>, accessed 10.20.2016

PINU021 - Pinus sylvestris 'Burghfield' - globose. Needles rich golden-yellow becoming more lime to chartreuse, very rich gold tones in winter. So, in, ph: <http://www.coniferkingdom.com>, accessed 10.20.2016

PINU022 - Pinus strobus 'Ridgemont Rosie' - needle canopy richly mottled yellow. Or: Ken Marek, Adrian, Michigan, USA, the first word in the name for the location he found it and the second for his daughter. So, in, ph: <http://www.coniferkingdom.com>, accessed 10.20.2016

PINU023 - Pinus strobus 'Joes Best Blue' - full-sized cultivar. Needles exceptionally blue, very glaucous and banded too. Or: Josef Braeu, Edelweiss Nursery, Duluth, Minnesota, USA. So, in, ph: <http://www.coniferkingdom.com>, accessed 10.20.2016

PINU024 - Pinus mugo TWISTY™ - dwarf, branchlets twisted in artistic manner. Or: seedling of 'Tannenbaum'. In: Iseli Nursery, accessed 10.17.2016

PINU025 - Pinus peuce 'Pacific Blue' - 20 ft. tall x 15 ft. wide, compact, "good form". Needles very rich silvery-blue, persisting well, longer than some forms. Or: Iseli Nursery, their own selection of 'Glauca', Catalog 2016-17, accessed 10.17.2016.

PINU026 - Pinus strobus 'Blue Clovers' - 25 ft. tall x 15 ft. wide. Gray bark showy. Needles rich silvery-blue, showy, longer. Or: Jason Hupp, Western Evergreen Nursery, Oregon, So, in: <http://westernevergreen.com>, accessed 10.22.2016

PINU027 - Pinus strobus 'Ivory Whiskers' - needles with yellow to ivory-colored new tips, later green. So, in: <http://westernevergreen.com>, accessed 10.22.2016

PINU028 - Pinus mugo 'Gerringong' - foliage mottled yellow to about 25%. So, in: www.stanleyandsons.com, accessed 10.21.2016, apparently known in Australia since before

1998.

PINU029 - *Pinus strobus* 'Octapusse' - low, dwarf, weeping to prostrate (depending on grafting height and training), 4 inches growth a year. Needles twisted. Or: Boyko, Sandy, Oregon, USA

PINU030 - *Pinus montezumae* 'Sheffield Park' - compact, dense, pyramidal with a subglobose crown, foliage bluish to bluish-green clone, some images show it a very bright powder blue, with thick plumous heads of needles. selection a 100 -year old specimen of note at Sheffield Park, Essex, England, recently "saved from extinction" by Lime Cross Nursery's Jonathan Tate, not it is quite hardy there, <https://www.limecross.co.uk/product/pinus-montezumae-sheffield-park/>, accessed 5.10.2017. It should be noted that *P. montezumae* was a early name that now is split into other species including *P. rudis* and *P. hartwegii*. See also https://www.monumentaltrees.com/en/gbr/england/eastsussex/2133_sheffieldparkgardens/3117/

PINU031 - *Pinus banksiana* 'Snow Trail' . dwarf from witches broom, needles bright green, shorter. So: <http://www.coniferkingdom.com/pinus-banksiana-snow-trail/>, accessed 5.11.2017

PIST001 - *Pistachia chinensis* WESTERN SON® 'Pairs Choice' - 30 ft tall x wide, upright-spreading to globose, stronger trunk, robust, good branch angles Leaves dark green, fall color reliably orange to red, however their images shows a golden base color with red to orange highlightss, not random as with most seedling populations. Fruit absent, male clone.
jfschmidt.com, accessed 4.24.2015

PITT001 - *Pittosporum tenuifolium* 'Hole in One' - 60-80cm tall x wide, much as parent 'Golf Ball', very compact, dense. Leaves minty-green, irregularly and thinly edged white at 4-10% surface, overall with a pale silvery-green with a distinct silvery sheen. Or: variegated sport of 'Golf Ball'. Video: <https://www.youtube.com/watch?v=sKdNEPXgyxl>, accessed 3.12.2017

PITT002 - *Pittosporum tenuifolium* 'Tasman Ruffles' - 4-5m tall x wide, irregular, subglobose. Leaves glowing jade green to yellowish-green, contrasting much with blackish stems, strongly undulate and short.

PLAT001 - *Platanus x acerifolia* 'Ace of Clubs' - "hybrid". Leaves very strongly incised, often to 50% deep, gold in fall (New Zealand). Wairere.co.nz, accessed 4.24.2015

PLAT002 - *Platanus occidentalis* SILVERWOOD™ 'Grenickel' - 75-100 ft. tall, vigorous. Bark more white to cream shades, less tan and brown sections, like a palish Eucalyptus bark in fact. Greenleaf Nursery intro. c. 2014. Photo: http://www.gardendebut.com/_cclib/image/plants/DETA2-5264.jpg

PLAT003 - *Platanus x acerifolia* ROCKFORD ROAD™ 'Grejtn' - 60-75 ft. tall, vigorous proven clone. Bark more intensely white than typical, having some pale cream to tan patches too. Greenleaf Nursery intro. 2015.

PLAT004 - *Platanus x acerifolia* PLATANOR® 'Vallis Clausa' - high resistant to anthranose and canker, moderate mildew resistance Or: ROUY-IMBERT Nurseries, Montfavet, Avignon, France and INRA as a completely new cross of the original parents in 1994, more than 10,000 hybrid seedlings screens, resistant *P. occidentalis* germplasm provided by Dr. McCracken of the USDA, Euro PBR on August 16, 2012. Sycamore canker was accidentally introduced into Europe in 1944 from *Platanus occidentalis* wood cases sent over from the US. Prop: roots well from hardwood cuttings. Web: <http://www.inra.fr/en/Partners-and-Agribusiness/Results-Innovations-Transfer/All-the-news/PLATANOR-R-Vallis-clausa-a-plane-tree-variety-resistant-to-canker-stain>, accessed 10.18.2016



PODO001 - *Podocarpus elongatus* ICEE BLUE™ 'Monmal' is one of the frostiest of all conifers and certainly tops among the wide-needed ones. This icy tone is nothing new for a juniper or spruce but in this genus most taxa are dark green in our gardens. It is USDA 9 but people have done okay with it in 7b and 8 if in a much-sheltered courtyard against a very warm building. It should be smashing in any conservatory too. Click image to elongate. Photo above is not available for OROC Data Sharing.

[PODO002 - *Podocarpus nagi* 'Thomasville Hardy' \(Nurseries Caroliniana\)](#)

[PODO003 - *Podocarpus macrophyllus* EMERALD FLAME™ 'Royal Flush' \(Nurseries Caroliniana\)](#)

[PODO004 - *Podocarpus macrophyllus* LEMON SPARKLER™ 'Golden Crown' \(Nurseries Caroliniana\)](#)

PODO005 – *Podocarpus macrophyllus* var. Maki 'Upright Columnar Cliff' – columnar. Cold hardy in Chapel Hill, North Carolina (USDA 7b). Camforest.com, accessed 4.23.2015, their own selection from their original nursery



Poncirus trifoliata 'Snow Dragon'

PONC001 - Poncirus trifoliata var. monstrosa 'Snow Dragon' (variegated and twisted). Or: Japan, introduced to the US by Rock Crowder of Hawksridge Nursery, NC, also distributed by Nurseries Caroliniana.. It is a cream-margined sport of var. monstrosa (T. Ito) Swingle which is sold widely under the superfluous cultivar name 'Flying Dragon'. It comes true from seed and this cultivar name does not represent anything more than classic, old material. If the all green form should have a cultivar name it would be 'Hiryu', the old Japanese name for the variety.

PONC002 - Poncirus trifoliata var. monstrosa 'Tiny Dragon' (Hawksridge Farms)

PONC003 - Poncirus trifoliata 'Baby Dragon' (Nurseries Caroliniana) - same as 'Tiny Dragon'?

POPU001 - Populus nigra NORTHERN ESTEEM™ 'Schreiner' - vigorous, large tree in time, having the role of P. nigra or P. deltoides but with especially glossy, finely undulate, emerald green leaves, showing full disease and insect resistance, classic deltoid blades, proven very cold hardy in USDA 3. North Dakota State University purchased in 1978 from a Pennsylvania nursery as P. charkowiensis x P. 'Incrassata', evaluated over 30 years at the NDSU Arboretum and superior to most other large poplars studied. It was evaluated in 2011 by three US Forest Service experts and determined to be P. nigra as var. charkowiensis and var. incrassata are considered two of its infraspecific variants by many poplar taxonomists (not all). It is considered now to be from the breeding work of E.J. Schreiner of the Northeastern Forest Station, Radnor, PA USA also known as NE308 and is now named for him. Officially introduced 2011. Further study of the name NE308 shows that the American EPA (Environmental Protection Agency) listed it as a desirable "phytoremediation" clone in 1998. In other words, it can help purify a hostile, damaged environment and in the event of global environmental chaos thrive to produce wood for new buildings. Other work suggested that NE308 is photosynthetically more efficient and produces a larger biomass of roots, stems, and leaves than many popular, poplar clones.

POPU002 - Populus SUNDANCER™ 'WS-151E-76' - 21m tall x 3.5m wide (original tree, 32 years), columnar, vigorous, aggressive root system so do not plant near buildings, long-lived to about 60 years. Leaves dark green, deltoid-cordiform, broadly cuneate, acuminate, greyish-green below, 6.0cm long x wide (mean). yellow in fall. Lu: high landscape tolerances in terms of drought, standing water, soil pH, pollution, and light environmental salt., best for shade and windbreaks use away from buildings. Ch: USDA 3a. Sex: male, hence seedless. Or: Agroforestry Development Centre, Indian Head, Saskatchewan, Canada by Dr. Carl Lindquist in 1979, cross of P. 'Walker' x P. x canadensis 'Serotina de Selys', selected by Dr. William Schroeder in 1986. Dr: it is more cold hardy and much more bronze leaf disease resistant than 'Tower', 'Assiniboine', and 'Prairie Sky'. Dieback in these other cultivars is typical 40-57% but just 6% in this new, named clone. Septoria canker showed 0% of trees infected compared to 6-20% for the previously named clones.

web:: http://search.eaglelakenurseries.com/11050003/Plant/18930/Sundancer_Poplar, also <http://www.nrcresearchpress.com/doi/pdf/10.4141/cjps2013-134>, accessed 1.1.2017

POPU003 - Populus tremuloides 'Advance' - growth very upright, narrowly pyramidal to subcolumnar, bark very white, showy, vigorous. Lu: easier to transplant if spring dug. Dr: resistant to shoot-tip blight.

or, in, so: <http://www.nurseryavailabilities.com/Advance/web/docs/catalogue.pdf>, accessed 12.20.2016, their own select c. 2011 from superior seedlings.

POPU004 - Populus GUARDIAN™ 'Jefguard' - 40 ft. tall x 10 ft. wide, columnar, vigorous. Ch: USDA 2. Leaves showy yellow in fall. Sex: male, seedless. Dr. bronze leaf disease resistant.

web: <http://www.jeffriesnurseries.com/guardian.pdf>, accessed 1.1.2017, their own introduction 2017 as a "complex aspen hybrid".

POPU005 - Populus deltoides SKYFEST™ 'Jefcot' - 80 ft. tall x 30 ft. wide, upright, vigorous, more uniform than seedlings. Ch: USDA 2. Leaves showy golden-yellow in fall. Sex: male, seedless. Dr. "high disease resistance" (species unspecified). web: <http://www.jeffriesnurseries.com/guardian.pdf>, accessed 1.1.2017, their own introduction.

POPU006 - Populus tremuloides FOREST SILVER™ 'Driefest' - 40 ft. tall x 15 ft. wide, vigorous, erect, columnar to more narrowly pyramidal with age, bark silver-grey, showy. Leaves dark green, becoming orange to yellow shades in fall. web: http://www.psnursery.com/media/pdfs/deciduous/poplar/forest_silver_aspen.pdf, accessed 1.1.2017

POPU007 - Populus tremuloides PIKE BAY™ - 50 ft. tall x 20 ft. wide, distinctly erect, very vigorous, bark said to be lighter and brighter by some reports. Leaves dark green, yellow and showy in fall. Or: University of Minnesota, apparently named for the experiment station and forest of the same name. Dr: canker resistant.

POTE001 – Potentilla fruticosa CRÈME BRULE™ 'Bailbrule' – 3.0-35. Ft. tall x 2-3 ft. wide, upright-rounded. Flowers double, bright white, Leaves medium to dark green. USDA 2. Bred at Morden Research Centre, Manitoba, Canada, introduced by Baileynurseries.com, website, accessed 4.23.201

POTE002 - Potentilla fruticosa 'Glamour Girl' (Plants for Europe)

POTE003 - Potentilla fruticosa HAPPY FACE® YELLOW - 24-36 in. tall., compact, globose. Flowers numerous, corolla golden-yellow, blooms most of summer, strong for up to 4 weeks.

POTE004 - Potentilla fruticosa HAPPY FACE® PINK PARADISE 'Kupinpa' - 24-36 in. tall., compact, globose. Flowers numerous, corolla white heavily tinged pink, effectively light pink, patent app claims "rich pink" (RHS 61C to N57D above), can be semi-double to double, average petal count 10 (per patent app), 2.9cm wide, generally not shown as doubled on nursery websites (May 2015), may fade in extreme sun, blooms most of summer, strong for up to 4 weeks. US Plant Patent #22732 on May 15, 2012 to Henricus Kuijf as sport of 'Pink Beauty' 2006.

POTE005 - Potentilla fruticosa HAPPY FACE® WHITE 'White Lady' - 24-36 in. tall., compact, globose. Flowers numerous, corolla golden-yellow, 3.1cm wide, blooms most of summer, strong for up to 4 weeks. Leaves dark green, not pale as many white-flowered clones. US Plant Patent #22761 on May 29, 2012 to Pieter Kolster, self-pollinated 'Abbotswood' seedling 2004, assigned the Spring Meadow Nursery.

POTE006 - Potentilla fruticosa 'Red Lady' - compact, upright, sprfeading. Flower corolla 2.8cm wide (larger than 'Marion Red Robin'), color red, large. US Plant Patent #22767 to Pieter Kolster, from selfed 'Marion Red Robin' 2004, selected 2005, assigned to Spring Meadow Nursery.

Potentilla fruticosa HAPPY FACE® WHITE 'White Lady' - 2-3 ft. tall x 2-4 ft. wide, compact (more so than parent 'Abbotswood'), neat. Flower corolla pure white, very large for species (3.1 cm wide, 9mm deep), longer bloom period (until November in Netherlands, the parent clone ending in mid-September there). Leaves 2.9 cm long x 3.3 cm wide, leaflets 1.9 cm long x 1.4cm wide. dark green, pubescent (glabrous in parent clone). USDA 2. Or: Pieter Kolster as self-pollination of 'Abbotswood' in 2004. In: assigned to Spring Meadow Nursery, marketed through Proven Winnters.Ns: sometimes listed as a trademark, the US Patent #22761 of 2012 clearly establishes this nomenclatural status.

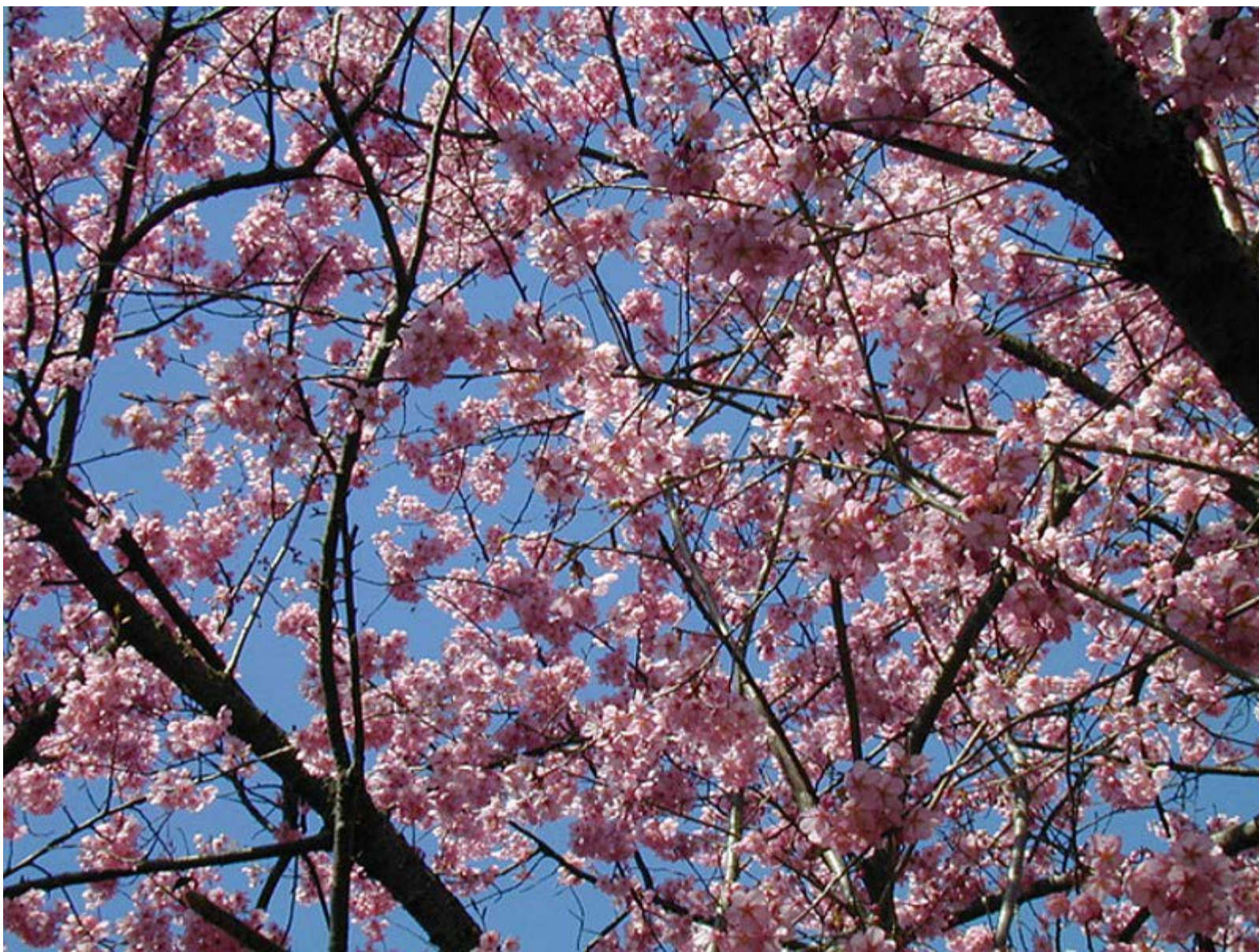
Potentilla fruticosa 'Red Lady' - Habit erect, somewhat outwardly spreading, more spreading than parent clone 'Marion Red Robbin', freely branched. Leaves 1.4 cm long x 2.1 cm wide, leaflets 1.1 cm long x 4 mm wide. Flower corolla red, holding color longer than parent clone (not fading to orangish-red as it does), very large (2.8 cm wide) among red clones, more floriferous than parent clone, individual blooms lasting up to 5 days, 60% of flowers having a single additional petaloid of 1.1 cm long x 7 mm wide. Pat, or: US# 22767 on 5 June, 2012 to Pieter Kolster from self-pollination of 'Marion Red Robbin' in 2004. In: assigned to Spring Meadow Nursery.

Potentilla fruticosa HAPPY FACE® PINK PARADISE 'Kupinpa' - 2-3 ft. tall x 2-4 ft. wide. Flowers medium to rich pink, 2.9 cm wide, semi-double (mean of 10 petals and petaloids), holding color longer than most pink clones, mean of 475 flowers per plant. USDA 2. Pat, or: US# 22732 to Hendricus Jacobus Maria Kuijf as whole plant mutation of 'Pink Beauty' in Amstelhoek, The Netherlands in 2006.

Potentilla fruticosa LOVELY PINK® 'Pink Beauty' - 80-100cm tall x wide, subglobose, uniform habit. Leaves dark green. Flower corolla delicate medium-light pink, very floriferous, longer bloom show than most pink clones, color fading somewhat in strong sub but can "swifty regain their brightness". Considered by some to be the best, pink-flowering clone for general landscape use. Web: <http://www.sapho.fr/gb/trees-and-shrubs/85-potentilla-fruticosa-lovely-pink-pink-beauty.html>, accessed 9.10.2016

-end of OROC Data Sharing

PRUN001 - Prunus incisa FRILLY FROCK (Esveld Nursery), a lovely gold-margined clone



PRUN002 - Prunus 'Helen Taft' is one of the newest US National Arboretum creations. Click the link below for the official release notice - and then the image to enlarge.
<http://www.usna.usda.gov/Newintro/helen%20taft.pdf>

PRUN003 - Prunus 'Abigail Adams' release: http://www.usna.usda.gov/Newintro/Abigail_Adams.pdf

PRUN004 - Prunus FIRST BLUSH™ 'JFS-KW14' - 25 ft. tall x 12 ft. wide, narrowly upright-ovoid. Leaves dark green, orange to orangish-red in fall. Flowers double to semi-double, open to cupped face, not a rounded or double pom-pom double at all, showing stamens, buds darker pink with a calyx in violet-pink with darker violet-red margins, very fragrant. jfschmidt.com, their own selection, introduced 2016.

PRUN005 - Prunus PINK CASCADE™ 'NCPH1' - 12 ft. tall x wide, weeping, a narrow down-turning dome. Leaves dark green, finely textured, orange tones in fall. Flowers light to medium pink, very abundant, calyx a darker violet-red, corolla campanulate in general. USDA 5. Selected at North Carolina State University. Introduced c. 2015.

PRUN006 - Prunus (Sato-Zakura Group) 'Little Jeremy' - 1.0-1.5m tall, usually grafted on high understock for a small globose tree, medium dense globose, not too congested, occasionally similar to well-known dwarf Prunus persica but with different leaf morphology. Flowers medium pink in bud, opening near white to white tinged pink, single to semi-double, some petals notched.. Selected by Andre van Nijnatten, usually sold under P. serrulata but that pure species is very rare in the West, most material being Sato-Zakura Group hybrids.

PRUN007 - Prunus incisa 'CarltonLT' LITTLE TWIST™ - 8 ft. tall x wide, compact, often grafted on a standard for better effect as a tree, distinctly twisted or contorted branching, flowers profuse, white centered in pink, fall color maroon. Typically grafted at 3-4 ft. on a standard. There is some concern that this is merely a rename of the Japanese clone 'Kojo-No-Mai', making 'CarltonLT' invalid and the trademark name not associated with the originator in any known way. Carlton's website:
http://www.carltonplants.com/uploads/pdfs/Carlton_Plants_Little_Twist_Brochure.pdf

PRUN008 - Prunus incisa 'FPMSPL' LEMON SPLASH™ - 13 ft. tall x 6 ft. wide when grafted high on 4 foot standard, strongly pendulous, flower pale pink opening whiter. In summer leaves are yellow margined with green centers, giving an off-season interest so rare in weeping cherries. Or, pat: US# 23384 on Feb. 12, 2013 to Nick Dunn, Carlton Plants, found as sport of 'Snow Showers' in a nursery in Tenbury Wells, Worcestershire, England. . Google Patents shows the entire application:
https://www.google.com/patents/USPP23384?dq=prunus+incisa&hl=en&sa=X&ved=0ahUKEwjgrsDX5c_LAhVBLyYKHxs3CD8Q6AEIHTAA

PRUN009 - Prunus laurocerasus 'Zita' - 80cm tall x 200cm wide, slower to semi-dwarf, very compact, mounded, smaller than most popular cultivars. Leaves bronzy-red at first, later medium green and finally dark glossy green, reduced in size, mostly elliptic, never long lanceolate or oblanceolate as some cultivars. "Disease resistant" (species not specified). USDA 6. Or, pat: US# 26206 on May 9, 2013 to Jozka Milkosne, Hungary, as whole plant mutation arising from seedling open pollinated from 'Mari', 'Piri', and 'Klari' but unclear as to the particular parent seedling's origin.

PRUN010 - Prunus persica 'Hinanotaki' - habit medium vigor, weeping, ornamental overall. Flowers numerous, double, pink, containing fertile pollen. Fruits in 105 days, round-elliptical to round, small, 173g (mean weight), skin yellow with red blushes, flesh yellow with some red blushing, semi-non-melting, clingstone. Or: National Ag. and Food Res. Inst. of Fruit Tree Science (NIFTS), Japan, intro. 2008. Web:
<http://www.cabdirect.org/abstracts/20153403143.html;jsessionid=9D7D38D7085169998F263A987014BD75>

PRUN011 - Prunus EMERALD CHARM™ 'Morgenson' (P. fruticosa x Prunus unknown species) - dense shrub 4-6 tall by wide, if allowed a tree of 20-25 ft. tall x 15-18 ft. wide, up to 1.25 ft. growth a year over 16 years, multi-stemmed by nature unless trained as single trunk, suckering, vase-shaped to domed-spreading (roughly subglobose-wide), substitute for tree lilac in very cold climates. Bark dark brown, tinged red, somewhat showy, thus slightly similar to Syringa reticulata and S. japonica. Leaves thick, durable, deciduous, heat tolerant, medium to dark green, very lustrous, showy, yellow tints in fall. Flowers white, numerous, in small clusters. USDA Zone 3 cold hardy. Propagated by budding on P. maackii or P. cerasus 'Meteor' (a sour cherry). Or: Greg Morgenson, Manager, Lincoln-Oakes Nursery, Bismark, North Dakota, USA collected seed of Prunus fruticosa in Northern Plains in the middle 1980s. It is obviously a cross to another, yet unknown species. Licensed by North Dakota State University as item RFM-57, intro.

2008 NDSU website: <http://www.ndsuresearchfoundation.org/rfm57>

PRUN012 - Prunus lusitanica subsp. azorica TICO® 'YBRAZO01' - Vigorous but neat, superior form, reddish new tips, becoming bright lime, later more typical green shades. Petioles also red, showy, contrasting. Very cold hardy as typical of the subspecies. Or: Yves Brenelere, selection.

PRUN013 - Prunus laurocerasus GORIS GOLD™ 'Goris11' - 2m tall x 80cm wide (7 years), habit similar to 'Reynvaanii', suitable as a golden hedge. Leaves bright yellow at first, later more chartreuse, fading subtly to light-medium green, slightly and faintly mottled as such, best color with some sun. Pat: Euro CPVO 38079 to Kees Goris, GorisGenerations, Hoogerheide, The Netherlands, on Brabantse Wal.
In, ph: <https://www.plantipp.eu/en/Plants/prunus-laurocerasus-goris-gold-goris11pbr-2/>. accessed 10.17.2016, also <http://www.gorisgenerations.com/>

PRUN014 - Prunus laurocerasus LEGEND™ 'GRPL19' - 2.5m tall x 1.0m wide, vigorous, strong shrub. Leaves with distinctly round, obtuse apex, slightly twisted and curved too, very glossy medium to dark green, almost plastic-like appearance, midrib notably a paler, yellowish shade, being named for "Elvis Presley's legendary, shiny hairdo", very distinct look for this species. Ch: to -22 deg. C. Pat: Euro CPVO PBR 41693. In, ph: <https://www.plantipp.eu/en/Plants/prunus-laurocerasus-legend-grpl19pbr-2/>, accessed 10.17.2016

PRUN015 - Prunus laurocerasus TITAN™ 'Renden' - 1.25m tall x 1.0m wide, strong, dense, erect. Leaves with distinctly copper to dark orange color, later typical green, maintaining vigor and new tips keeps the plant much more colorful in summer. Flowers white, numerous, showy. Ch: to -22 deg. C. Pat: Euro CPVO PBR 41685, selected from 'Mischeana', named for it being a superhero in terms of form, foliage, and flowers. In, ph: <https://www.plantipp.eu/en/Plants/prunus-laurocerasus-titan-rendanpbr-2/>, accessed 10.17.2016

PRUN016 - Prunus laurocerasus 'Hibani' - 2 m tall (6 years), broadly erect, taller than most other clone, leaves glossy dark green, new tips a showy reddish-bronze to dark orange tone, keeping this color for 2-3 weeks in the spring or when new growth appears after trimming. Web: <https://www.plantipp.eu/en/Plants/prunus-laurocerasus-hibanipbr-2/>, accessed 5.11.2017. Pat: Euro 28463

PRUN017 - Prunus laurocerasus ATHENE® 'Bokraath' - 1m tall x wider, low, compact, wider than 'Otto Luykens'. Leaves dark green, glossy, similar to 'Otto Luykens' shape. Flowers creamy-white, erect racemes, showy. Very cold hardy. In, ph: <http://www.boot.nl/en/new-products>, accessed 10.21.2016

PRUN018 - Prunus laurocerasus MERCURIOS® 'Bokramer' - 1m tall x wider, broad-spreading, compact. Leaves dark green, glossy. Flowers showy in pure white, erect racemes. In, ph: <http://www.boot.nl/en/new-products>, accessed 10.21.2016

PRUN019 - Prunus laurocerasus GREEN DISCOVERY® 'Bokraschalk' - 5m tall, upright, narrowly pyramidal, quite large in time, erect. Leaves glossy, dark green. In, ph: <http://www.boot.nl/en/new-products>, accessed 10.21.2016

PRUN020 - Prunus laurocerasus OLYMPICUS® 'Bokralym' - 1.25m tall, much as 'Van Nes' but lower, broadly upright overall. Leaves medium green, glossy. In, ph: <http://www.boot.nl/en/new-products>, accessed 10.21.2016

PRUN021 - Prunus ROYAL FLAME® 'Mieke' - 7-9m tall x 5.0-5.6m wide, pyramidal, narrowly so at first. regularly branched, straight trunk, many secondary limbs. Flowers light pink in bud, later white tinged pink on reverse, single, nicely scented, to 4cm wide. Leaves intense, red in fall, sometimes with yellow and orange added, deep reddish-orange being common though some online images show only red tones. Pat, or: Batouwe Boomkewkerien, Euro CPVO PBR 2015/0195. Ph, web: <http://www.grootgroenplus.nl/uploads/2016/noviteiten/Prunus%20%E2%80%98Mieke%E2%80%99.pdf>, accessed 10.22.2016

PRUN022 - Prunus padus 'Sweetheart' - more upright, smaller than typical, less vigorous, non-suckering. Leaves reddish-purple, Flowers "very pink". Prop: roots well from cuttings. web: <http://www.nurseryavailabilities.com/Advance/web/docs/catalogue.pdf>, Advance Nursery, Grand Forks, BC, Canada, accessed 12.20.2016, their own selection from seed acquired at Lakeshore Tree Farms, Saskatoon.

PRUN023 - Prunus padus 'Sunstar' - more upright, showier bark. Flowers numerous, later than May Day. Or: Harold Voogd, Sunstar Nurseries, Edmonton, Canada. web: <http://www.nurseryavailabilities.com/Advance/web/docs/catalogue.pdf>, Advance Nursery, Grand Forks, BC, Canada, accessed 12.20.2016

PRUN024 - Prunus maackii 'Ming' - 10 ft. tall x wide, loose erect-pyramidal maturing to more subglobose, producing a full head faster than typical seedlings, showy exfoliating "burnished burgundy" bark as species, a darker color than most clones, the darkest known to experts to date (January 2017), photos we have seen suggest more of a dark reddish-orange than true burgundy red overall though some dark red tints appear here and there. Flowers white, very numerous, unscented. Fruit small, black, numerous, long-lasting, attracting birds and other wildlife throughout fall and into winter. Leaves green all summer, yellowish in fall (generally not showy). Lu: slightly salt tolerant. Ch: USDA 3. web: <http://www.bylands.com/plant/ming-cherry-prunus-maackii-ming>, accessed 1.1.2017
web: http://www.atlasta.ca/images/Price_book_2012-13.pdf, accessed 1.1.2017

PSEU001 - Pseudotsuga menziesii 'Alber's Elegant Weeping' Conifer Kingdom, online website, accessed 11.23.2013.

ha: narrowly pendulous, graceful

lc: typical green

or, ns: Sam Pratt, Gig Harbor, WA USA, named for his mentor Dr. John Albers

PSEU002 - Pseudotsuga menziesii 'Blacksmith Fork' Porterhowse Farms, Current Specimen

List (ACS Database subset), accessed

11.23.2013

ha: dwarf, original broom vase-shaped

or: Carl Wildrick found broom in Utah USA

PSEU003 - Pseudotsuga menziesii 'Boyko's Blue Weeping' Conifer Kingdom, online website, accessed 11.23.2013

ha: narrowly pendulous, graceful

lc: bright blue

or: Jim Boyko

PSEU004 - Pseudotsuga menziesii 'Card Canyon' Porterhowse Farms, Current Specimen

List (ACS Database subset), accessed 11.23.2013

ha: dwarf from 18 in. wide, subglobose broom

or: Carl Wildrick found in Utah, USA

PSEU005 - *Pseudotsuga menziesii* 'Crescent Mountain' Garden Web, Conifer Forum, accessed 11.23.2013 with color photo
ha: dwarf
lc: rich frosty blue

PSEU006 - *Pseudotsuga menziesii* 'DuPont Dynamite' Conifer Kingdom, online website, accessed 11.23.2013
ha: "super-dense upright globose" from broom
ll: shorter
lc: slightly glaucous-blue, buds showy orangish-brown
or: Dave Olszyk

PSEU007 - *Pseudotsuga menziesii* 'Metolius Weeper' Porterhowse Farms, Current Specimen List (ACS Database subset), accessed PSEU11.23.2013
ha: large, strong, narrow, branches strictly pendulous
or: Porterhowse says Art Anderson with Tim Moriarity found this along the Metolius River in Oregon. He also received scionwood
or: Frank Hoffman that same year, who apparently discovered it too! The original wild tree died in a forest fire

PSEU008 - *Pseudotsuga menziesii* 'Helena' Mesterhazy in Conifer Treasury of the Cz. Republic 2.0, 2012
ha: dwarf from a broom, 3cm growth per year
or: Ladislav Musil, Musil Gardens, Cz. c. 2001

PSEU009 - *Pseudotsuga menziesii* 'Mount Angel Blue' Conifer Kingdom, online website, accessed 11.23.2013
ha: compact from broom
lc: bluish-green
frq: female strobili often numerous
or: Stephanie Krieg found as broom at Evergreen Golf Course, Mt. Angel OR

PSEU010 - *Pseudotsuga menziesii* 'Shorty's Blue' Buchholz and Buchholz Nursery, online catalog, accessed 11.23.2013
ht: 7 ft. tall x 3.5 ft. wide (10 years)
ha: upright, compact, pyramidal
lc: rich blue

PTER001 - *Pterocarya fraxinifolia* 'Abbotsbury Giant' - vigorous, larger than species typical. Leaves to 60cm long. Female inflor. to 50cm long, lafrger than many specimens. From a notably vigorous, larger in nearly all parts at Abbotsbury Garden, Dorset, England, considered superior to random nursery seedlings.

PUNI001 - *Punica granatum* 'Carrot Top' (Plant Delights)



Punica granatum 'Eight Ball'

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www.cultivar.org

Imaged at Juniper Level Botanic Garden

PUNI002 - *Punica granatum* 'Eight Ball' is a rather compact clone with small glossy, burgundy red fruit that is more ornamental than edible. The exocarp darkens to a lustrous reddish-black, inspiring Tony Avent to give it one of his usually creative and fun names. Please click on the image to enlarge. This image may NOT be extracted and copied under OROC Data Sharing.

PUNI003 - *Punica granatum* PURPLE SUNSET® 'PIIPG1' - Habit compact, dense, as parent 'Nana', 3-4 ft. tall x wide, up to 6 ft. tall in warm climates such as Florida. Fruit dark blackish-purple, 2-3 in. wide, generally not considered edible. US Plant Patent #21031 to Dr. Mike Dirr, open pollinated 'Nana' before 2008.

PUNI004 - *Punica granatum* 'Mini Magic' - 20-30cm tall. compact. Leaves much smaller, reduced, short linear to short-lanceolate. Flower corolla rich, bright orange, very floriferous, mostly semi-double to open double, this hue much more orange (less scarlet or crimson) than 'Nana' or Nana Group as seen in the US. Web: <http://www.touchofclassplants.com.au/products/punica-granatum-nana-compact-mini-magic/>, accessed 3.12.2017

PYRA001 - *Pyracantha* 'Golden Paradise' - 1.5-1.8m tall x 1.0m wide (10 years). Leaves bright yellow at first, later more chartreuse. Fruit orange. Coblands.co.uk, accessed 4.25.2015, their own selection, introduced 2014. The first ever all gold-leaved cultivar on the market.



PYRU001 - Pyrus JAVELIN™ (J.F. Schmidt)

PYRU002 - Pyrus calleryana 'Kea' - leaves glossy green, mix of very dark red and green in fall. Adapted to New Zealand climate. Wairere.co.nz, accessed 4.25.2015

PYRU003 - Pyrus NAVIGATOR 'DurPSN302' - 35 ft. tall x 18 ft. wide, upright, pyramidal overall, strong branching, medium-sized shade tree. Leaves green, glossy. Flowers white, showy. Ch: USDA 2. Lu: said to perform better in higher pH soils than most traditional ornamental pears. Fruit "golf ball" sized, hence not like P. calleryana, will be mostly fruitless if no pollinator are nearby, hence the reports it "seldom fruits".. Or: Eick Durand, Prairie Shade Nursery

The Oak Names Database of the International Oak Society is our standard for existing, published cultivars

QUER001 - Quercus x bushii 'Seattle Trident' (Bluebell Nursery)

QUER002 - Quercus serrata 'Curly Head' (Bluebell Nursery)

QUER003 - Quercus palustris 'Flaming Suzy' (Bluebell Nursery)

QUER004 - Quercus robur 'Timuki' (Bluebell Nursery) - best purple oak yet and mildew resistant?

QUER005 - Quercus palustris PACIFIC BRILLIANCE™ (Upshoot)

QUER006 - Quercus STREETSPIRE®

QUER007 - FOREST KNIGHT® (J.F. Schmidt) - useful file explains the various Q. robur, bicolor, and alba hybrids with picture of each and how they differ.

QUER008 - *Quercus alba* 'Wieting' - fall color rich medium to dark red, glowing in some light conditions, very showy. Origin: Mr. Wieting, Germany.

QUER009 - *Quercus robur* 'Alrnap Weeping' - low, true weeping mound, apparently more constrained and less wild than the old, original 'Pendula'. Photo: <http://gardenbreizh.org/photos/Oli/photo-589489.html>

QUER010 - *Quercus bicolor* BUCK'S UNLIMITED™ - vigorous. Flowers, nuts born earlier, often on trees as young as 5 years (vs. 20+ years for species). Fruit (nuts, mast) abundant. Up to 96% seedling survival which together with vigor make this a useful ornamental, landscape taxon. fknursery.com, accessed 5.2.2015., their intro. in cooperation with the Dr. Mark Coggeshall, University of Missouri.

QUER011 - *Quercus nuttallii* RUBY SPRING™ 'Betterred' - new growth bright red to purplish-red in spring, substantially showier than most oaks in spring leaf, maturing to typical dark green, fall colors in yellow to bronze shades, proven to fall cleanly. Pat: US# 24813 In: www.boldspring.com, accessed 2.28/2016. Web: <http://athenatrees.com/our-introductions/ruby-spring-nuttall-oak/>

QUER012 *Quercus nuttallii* 'Big Boy' - clonally vigorous, new growth of foliage green (not red), fall color intense red to bronze-red, rivaling any oak for red autumn tones. Or: Glenn Simmons, Natchez, Mississippi. In: www.boldspring.com, accessed 2.28/2016

QUER013 - *Quercus macrocarpa* 'Mother Load' - dwarf from witches broom, dense, globose.

QUER014 - *Quercus illicifolia* 'Tromp Ball' ('Nana' illegitimate post-1952 Latin name) - 2-4m tall by wide, globose, usually grafted high on standard. Or: Arboretum Trompeberg, The Netherlands

QUER015 - *Quercus palustris* 'Windischleuba' - leaves finely mottled and speckled white to cream, at 50% surface, some blades more mottled in sectors only, favoring one side of the blade or the other. Lsp: Hillier Arb., Trompenberg Arb. li: Jablonski, Ginkgoblätter, 78: 14 (2000) per oaknames.org, accessed 5.18.2016
Photo: http://gardenbreizh.org/modules/pix/cache/photos_590000/GBPIX_photo_592742.jpg

QUER016 - *Quercus ilex* 'Olive Pillar' - 20m tall x 8m wide, more narrowly pyramidal to conical, not strictly a pillar. Or: Hillingdon, Norfolk, England, chance seedling. So: www.blueberrynursery.com, accessed 5.16.2016

QUER017 - *Quercus* 'Blue Shamrock' (*Q. havardii* x *Q. stellata*) - 8m tall. Leaves very rich blue, showy. Or: Allan Taylor found near Shamrock, Texas, USA in 2008.

QUER018 - *Quercus* 'Chocha' - leaves leathery, intermediate between parents *Q. rysophylla* and *Q. rubra*, autumn color in orange shades. Registered by the International Oak Society.
Web: <http://www.arboretumwespelaar.be/IdentificatieKeysImages.aspx?Family=Fagaceae&Genus=Quercus&Specy=%27Chocha%27>, accessed 10.22.2016

QUER019 - *Quercus coccinea* 'Crimson Cloud' - leaves larger than typical, up to 33cm long x 20cm wide, sinuses very deep, fall color reliably bright red shades. Or: Ryan Russell found on University of Missouri campus in 2009. Registered with the International Oak Society.

QUER020 - *Quercus crassifolia* 'Flamingo' - leaves with bright pinkish-red new growth. Or: Maurice Foster, Ivy Hatch, UK as selection. Li: Jablonski, J. Int. Oak Soc. 27: 143 (2016). No nursery sources reported as of 10.20.2016.

QUER021 - *Quercus ellipsoidalis* 'December Red'

QUER022 - *Quercus lyrata* MARQUEE® 'Nightlights' - 55 ft. tall x 45 ft. wide, upright and ovoid. Leaves very large, darker and glossier than some species variants, a very bold leaf, "some degree of red to purple-red fall color". Lu: highly tolerant of drought, heat, and urban conditions, as the species handling slightly water-logged soils too.
In, ph, so: <http://www.boldspring.com/trees/qld-std>, accessed 10.22.2016

QUER023 - *Quercus nuttallii* TYTLEST™ 'QNMTF' - 40-60 ft. tall x 40 ft. wide, compact, dense, dominant central leader, pyramidal overall, more narrowly so in youth. Leaves rich dark red or burgundy at first. Or, ph: <http://www.moonstreefarm.com/image-viewer-intro.htm?Intro/Fintro1-5.jpg>, accessed 10.21.2016, their own selection.

QUER024 - *Quercus oblongifolia* 'Arabella Blue'

QUER025 - *Quercus palustris* 'Betty Jam'

QUER026 - *Quercus palustris* KINGPIN™ 'Greenenvy' - "central leader is evident at every age", secondary limbs more ascending than normal, "upwardly sweeping", vigorous, narrowly pyramidal to ovoid, lower limbs not drooping as typical of this species in nurseries. Leaves glossy, "several shades darker than any other willow oak". Or: Sam Rogers, Bold Spring Nursery, Hawkinsville, Georgia, USA as open-pollinated selection from Walton County, GA USA in 200. US Patent #24837 attributed to Joh Hinds Barbour, Hawkinsville, GA and Sam Rogers, Bonaire, GA on September 2, 2014, assigned to Athena Trees Inc. In: <http://www.boldspring.com/trees/qpr-std>, accessed 10.19.2016, their own introduction. Web: <https://athenatrees.com/our-introductions/kingpin-willow-oak/>, accessed 10.19.2016, the US Plant Patent assignee.

QUER027 - *Quercus* 'Tromp Deerpon' - web: <http://www.internationaloaksociety.org/content/quercus-%E2%80%98tromp-deerpon%E2%80%99-extraordinary-hybrid>

QUER028 - *Quercus* 'Fire Water' (*Q. rubra* x *Q. coccinea*) - leaves intermediate in shape between two parents, rich orange to red shades in fall. Or: Jabonski, Starhill Forest, Illinois, USA from a group of hybrid seedlings c. 2013. source: www.bluebellnursery.com, accessed 5.16.2016. Herb: <http://www.oaknames.org/images/nomstand/NO5C5030.jpg>

QUER029 - *Quercus cerris* 'Boltes Obelisk' - narrowly erect, shaped as the name implies: Or: Josef Bolte, Paderborn, Germany raised from seed collected in 1998 at Kassel.

QUER030 - *Quercus rubra* 'Golden Dragon' - Leaves clear, bright creamy-yellow, most of the summer. So, in: <https://www.forestfarm.com/product.php?id=8406>, accessed 10.22.2016, also sold by www.brokenarrownursery.com

QUER031 - *Quercus bicolor* BEACON® 'Bonnie and Mike' - legacy name. Registration requested.

QUER031 - *Quercus bicolor* SUN BREAKER® 'Green Nova' - 55 ft. tall x 40 ft. wide, crown more balance, uniform, pyramidal overall. Leaves darker green, most glossy (lustrous), foliage drops clean in fall and winter, revealing the textured, showy bark. Eval: replacement for species as well as normal seedling *Q. alba* and like *Q. bicolor* it is easily to transplant than many white oak species, "the vanguard of a new era for this species" (Bold Spring Nursery). In, ph: <http://www.boldspring.com/trees/qd1-std>,

accessed 10.22.2016

QUER032 - *Quercus bicolor* AMERICAN DREAM 'JFS-KW12'

QUER033 - *Quercus hemisphaerica* AVALYN 'QHMTF' -

QUER034 - *Quercus lyrata* GREEN SPRING 'Earlybird' -

QUER035 - *Quercus nuttallii* BREEZEWAY 'Fullbright' -

QUER036 - *Quercus nuttallii* 'Solshine' -

QUER037 - *Quercus phellos* UPPERTON 'RT3' -

QUER038 - *Quercus ellipsoidalis* SHOOTING STAR® 'DurMarg' - 60 ft. tall x 40 ft. wide, broadly ovoid. Leaves glossy green, showy rich to dark scarlet-red shades in fall. Prop: commercially grafted onto to *Q. macrocarpa* to improve landscape durability, thus more tolerant of dry, alkaline soils in the prairie regions of the US and Canada. Or: Prairie Shade Nursery

QUER039 - *Quercus* SCARLET LETTER™ - 30-50 ft. tall x 10-15 ft. wide, narrowly columnar, branches very resistant to wind and snow damage, very dense, comparable to CRIMSON SPIRE™ in some evaluations. Leaves rich, dark red shades in fall, reliably more red than many older columnar hybrids. Web: <http://www.thetreefarm.com/oak-scarlet-letter>, accessed 1.15.2017

QUER040 - *Quercus macrocarpa* 'Bullet Proof' - 50-80 ft. tall x wide, typical massive spreading to subglobose form of species, bark deeply ridged, showy with age. Ir: this clone more gall resistant than typical seedlings. Web: <http://www.lot-lines.com/category/our-recommended-plants/page/2/>, accessed 1.15.2017

RHAM001 - *Rhamnus frangula* 'Minaret' - Narrowly erect., denser than old 'Fastigiata'. Leaves dark green, oval, much texture.

RHAP001 - *Rhapiolepis umbrellata* SOUTHERN MOON™ (Monrovia)

RHAP002 - *Rhapiolepis indica* COSMIC WHITE™ (Ozbreed). Please click vid below.

RHUS001 - *Rhus typhina* 'Radiance' (Bluebell Nursery, available 2015)

RHUS002 - *Rhus glabra* SUNFIRE™ - new growth bright chartreuse to lime, mixing with orangish-red to rich red colors in fall, coloring up in fall earlier than TIGER EYES®.

RIBE001 - *Ribes sanguineum* AMORE 'Anny-2003' - Plants 1.5 tall x 1.0 m wide. Flowers abundant, rich pinkish-red, sweet vanilla fragrance. Bred by Andre van Nijnatten, Netherlands.

RIBE002 - *Ribes sanguineum* 'Oregon Snowflake' - 1.2m tall x 1.3 m wide, mounded, semi-dwarf, much more compact and dense than WHITE ICICLE™. Leaves deeply lobed, strongly 5-palmatifid, 5-lobed, lobes acute (not obtuse to subobtuse as WHITE ICICLE™), margins also incised to very long-serrate, distinct shape and margins from most popular cultivars, 5.0cm long x 5.3cm wide, longer than WHITE ICICLE™. Flowers in pendulous racemes to 10cm long, 39 flowers (mean), corolla 2cm wide, greenish-white, appearing mostly white from a distance. Dr. Ryan Contreras and Mara Friddle, Oregon State University, Corvallis, Oregon USA from EMS treated seeds, selected 2001.

ROBI001 - *Robinia pseudoacacia* 'Beilinhuai 3' - vigorous, torn longer and wider (14.55mm), compound leaf longer and more drooping (28.8 cm), lanceolate leaflets, lower tannin levels. Considered multi-purpose, including use as an ornamental. Or: Beijing Forestry University as sport of 'K1'. web: http://en.cnki.com.cn/Article_en/CJFDTOTAL-LYKE201609020.htm, accessed 4.29.2017

Hatch's Cultivars of Woody Plants with 220 cultivars is our nomenclatural standard for the genus *Rosmarinus*.

ROSM001 - *Rosmarinus officinalis* CHEF'S CHOICE® 'Roman Beauty' - 12-18 in. tall x 2 in. wide, compact, suitable for smaller kitchen gardens. Leaves with higher oily content, more spicy, rich in cooking and when pressed, medium green, not very silver nor gray. Flower corolla light sky blue. US Patent #18192 in 2007 to Christopher Fairweather, UK as open-pollinated Prostratus Group. Cold hardy to -10 deg. F. We believe it deserves registration by OROC as the marketing trademark is quite recent for the US (May 2015). It is marketed by planthaven.com, accessed 5.12.2015, but they only use the 'Roman Beauty' name. The trademark name appears to have originated with: <http://sunsetwesterngardencollection.com/plant-collection/plant/chefs-choice-rosemary>, accessed 5.12.2015

RUBU001 - *Rubus* 'Margaret Gordon' (The Garden Flora of Northern Ireland)

RUBU002 - *Rubus cockburniana* 'Razzle Dazzle' - new growth mottled pink and cream, maturing variegation light green, medium green, various shades of yellow to cream, finely mottled, sometimes more boldly sectored. Introduced by Broken Arrow Nursery. Farreacesafarm.com, accessed 4.13.2015

RUSC001 - *Ruscus aculeatus* 'Elizabeth Lawrence' (Plant Delights)

RUSC002 - *Ruscus hypoglossum* 'Mr. Lonely' (Plant Delights)

SALI001 - *Salix crenata* 'Gang Bo Ha' (Buchholz Nursery)

SALI002 - *Salix alba* f. *sericea* 'Silver Column' (Song Sparrow Nursery) - a narrower version of the popular "silver willow" (this botanical, furry form) found at the Arnold Arb., about 35 ft. tall x 17 ft. wide. Either this or the basic form are amazing contrast trees for adding shimmering sterling tones that surpass most *Elaeagnus*.

SALI003 - *Salix alba* 'Swizzlestick' - Habit erect, contorted. Twigs yellow to orange shades in sun. Origin: Darrel Probst. Farreachesfarm.com, accessed 4.15.2015.

SALI004 - *Salix chaenomeloides* BLACK CAT™ 'Lubber's Zwart' - tall, stronger, more straight stems, freely branching. Flowers (aments or catkins) very numerous, showy grey shades, mixed with some black. Or, pat: US# 27403 on 11.22.2016 to Howard Lubbers, Holland, Michigan, USA, assigned to Spring Meadow nursery, produced as a branch mutation in 2008, the aments being a darker, richer gray than species typical.

SALI005 - Salix 'Rabbit's Foot' - See <http://hortsci.ashspublications.org/content/51/4/334.abstract>

SALI006 - Salix x leucopithecia (S. gracilistyla x S. caprea) 'Winter Glory' - 15-20 ft. tall x 5-8 ft. wide, a truly giant pussy willow, twigs reddish-brown. Flowers male, buds scarlet-red, catkins (aments) pinkish-silver opening to silver, amongst the largest known aments or "pussies" in the genus, 2-3 in. long, bearing golden pollen with age. Cold hardy in Vermont, USA (USDA 4) with no damage.

Web: <http://www.willowsvermont.com/wingl.html>, accessed 6.25.2016. So: <http://www.willowsvermont.com>, accessed 6.25.2016. Li: <http://hortsci.ashspublications.org/content/51/4/334.abstract>

SALI007 - Salix alba 'Flame Yellow' - 12 ft. tall x 8 ft. wide, stems very bright golden-yellow with some orange tints in younger stems. Ns: may be a hybrid of S. alba and not a pure clone. So: <http://www.willowsvermont.com>, accessed 6.25.2016

SALI008 - Salix caprea 'Lemoines Improved' - Flower aments very numerous, yellowish-silver, more golden as pollen appears, male clone. Or: Lemoine Nursery, France. Apparently this escaped the major woody plant references. So: <http://www.willowsvermont.com>, accessed 6.25.2016, new 2016 intro. for them.

SALI009 - Salix caprea 'Ogon' - 15-20 ft. tall, slightly slower than species. Leaves smaller than species typical, bright yellow in spring, very undulate at times, later more green. Flower aments very silvery, female clone. Or: Japan. In: Vermont Willow Nursery says they obtained it from Dick Jaynes of Broken Arrow Nursery who obtained it from Asian plant collector Barry Yinger. So: <http://www.willowsvermont.com>, accessed 6.25.2016

SALI010 - Salix (S. caprea x ?S. cinerea) 'Showtime' (formerly 'S365') - 10-15 ft. tall x 305 ft. wide, very narrow, erect. Leaves 2-3 in. long x 1.0-1.5 in wide, dark green, oblong, veins prominent. Flower aments very golden-yellow at maturity, being male and pollen-bearing, pollen not viable (triploid). Or: University of Toronto, triploid. Sex: male. So: <http://www.willowsvermont.com>, accessed 6.25.2016

SALI011 - Salix eriocephala 'Vigorella' ('S25') - 15-20 ft. tall, habit very strong, up to twice species growth rate. Leaves slightly orange in new tips, later bright light green, paler midrib showing much contrast. Or: University of Toronto, cross of two species clones. So: <http://www.willowsvermont.com>, accessed 6.25.2016, new 2016 intro.

SALI012 - Salix (S. caprea x ?S. purpurea) 'Licorice Whip' - Stems purplish-black, thus licorice-colored in winter. Flowers silver, later dark brownish-red, male. Or: Steve Hottovy, Beyond Green Nursery. So: <http://www.willowsvermont.com>, accessed 6.25.2016

SALI013 - Salix alba 'Golden Advance' - 30 ft. tall x 20 ft. wide, broadly ovoid, young bark and twig golden-yellow, showy

SALI014 - Salix aff. babylonica 'Napoleon's Tomb' - said to be the original clone which grew on St. Helena's Island under which famous Emperor Napoleon Bonaparte was buried. That tree and those nearby were removed about 1925. The so-called "Napoleon's Willow" has been confused, mixed up, thought to be lost, and more over the centuries. It is now known to have been transferred to New Zealand, particularly at Akaroa when a Frenchman Francois Lelievre arrived about 1840. Still the question remains if he brought just this one weeper or any others. It is thought to be long to Salix babylonica but once again the taxonomy of weeping willows is still in flux. This name has been used to establish the true St. Helena-Bonaparte clone back into the trade. In any case, the very old names S. napoleonensis, S. bonaparteana, and S. napoleana have no botanical or horticultural validity. OROC is seeking more taxonomic details on this clone. It is very likely to be a more pendulous clone than typical S. babylonica var. babylonica.

SAMB001 Sambucus nigra BLACK TOWER™ (Wayside Gardens)

SAMB002 Sambucus nigra RED HOLY 'Thundercloud' (Esveld)

SAMB003 - Sambucus nigra INSTANT KARMA™ 'Sanivalk' - 6-8 ft tall. leaves bluish-green, irregularly margined golden-yellow becoming margined creamy-white by summer, flowers numerous. Or: Peter Brand, A. Brand and Sons, Hertfordshire, UK, Canadian PBR applied for 2016.

SAMB004 - Sambucus nigra SUNRISE SURPRISE™ 'Welsh Gold' - leaves yellow, very lacy, highly incised, more cut than than most of the popular gold cuts, fall red fruit contrasting with it. Pat: US# 26425/ Or: Liss Forest Nursery, intro. 2016. In, ph: <http://conceptplants.com/plant/?p=sansunr>, accessed 1.16.2016

SAMB005 - Sambucus nigra STRAIT-LACED™ 'SNR1282' ('Straight Laced' www.naturehills.com, accessed 10.19.2016) - essentially a columnar to fastigate version of BLACK LACE™, combining cut-leaved, black-leaved, and columnar genes. Habit narrowly columnar, quite erect, twisted and curving slightly. Leaves highly incised, very dark blackish-purple. Flower light pink overall. Web: <http://springmeadownursery.com/content-media/pdf-specs/72320.pdf>, accessed 10.18.2016. Eval: Spring Meadow website notes "if Dr. Seuss were a plant breeder, this is what he'd create"

Pat, or: Canadian PBR to Fiona Margaret Wilson, Phoenix Ornamentals Ltd., Aylesford, Kent, UK, applied for on 5.26.2016

SAMB006 - Sambucus nigra LICORICE STIX™ 'Eiffel01' - 5-10 ft. tall x 3-4 ft. wide, leaves rich blackish-purple to deep burgundy-purple, new tips much greener, flower heads light pink, later more white and carmine, fruit black. It is not an incised blade like STRAIT-LACED™. Web: <http://www.bylands.com/plant/hgtv-licorice-stix-elder-sambucus-nigra-eiffel01-ppaf>, accessed 5.1.2017

SCHI001 - Schizophragma hydrangeoides 'Tonanifyu' - leaves heavily mottled and sectored yellow, chimera 35-55% of the surface. photo: <http://florawonder.blogspot.com/2014/05/return-to-carolina.html>, accessed 3.13.2017. In; Rich Crowder, Hawksridge Nursery, NC, introduced from Japan in 2010.

SCIA001 - Sciadopitys verticillata 'Tsai Cheng' - 2 m tall x 1 m wide (10 years), ovoid, dense, semi-dwarf, 3-5 inches growth a year, needles flat, olive-green, glossy So: <http://www.coniferkingdom.com>, accessed 5.16.2016

SCIA002 - Sciadopitys verticillata 'Eiffel Tower' - <http://www.grootgroenplus.nl/uploads/Documenten/Productsheets-nieuwigheden-2013-DEF%2015.pdf>, accessed 5.11.2017

SCIA003 - Sciadopitys verticillata 'Decora' - dwarf, pillow-shaped habit with time, growth rate about 5 cm per year.

SCIA004 - Sciadopitys verticillata 'Goldammer' - 1.5 m tall x 80cm wide, pyramidal, strong, needles rich gold, holding color over a long period, later lime green at their bases.

SCIA005 - Sciadopitys verticillata 'Henks Garden' - pyramidal, dwarf, 10 cm growth rare per year, needles yellowish-green to lime or chartreuse.

SCIA006 - Sciadopitys verticillata 'Queen Parasol' - 2.5 m tall (10 years), upright, needles green.

Dwergvorm, piramidale groei van 8 tot 10 cm per jaar. De naalden zijn geel-groen.

SCIA002 - *Sciadopitys verticillata* 'Blizzard Bound' - much more cold hardy. So: www.handynursery.com, accessed 5.16.2016

SMIL001 - *Smilax laurifolia* 'Havelock' - <http://www.plantdelights.com>, accessed 9.10.2016, Fall 2016 Catalog introduction

Editor's Note: The name *Styphnolobium japonicum* is rejected here because it amounts to a modern taxonomic "gotcha" or "haven't you heard" split of a genus which does not require it in general terms. We'd have to ignore twelve hundred and thirty of the most famous legume and woody plant taxonomists in previous decades and consider them all wrong to go with this name. If you accept this name, prepare your students, catalog editors, and nursery label makers to split *Acer* into several genera and *Cornus* too. White oaks and red oaks will now be separate genera, the evergreen stuff a third perhaps....how moronic. *Prunus* might be as many as twelve genera with this kind of extremist, splitsville mentality. The only basis for this split (and one that fits well into *Sophora* as a taxonomic Section) is chromosome number and the fact the taxa are not nitrogen-fixing, a very plastic physiological trait that some legume species have and others do not. There is nothing magic, sacred, or fundamentally genetic about these distinctions. We look no further than the Flora of China to place this new, silly, long name into synonymy. In the spirit of fairness, the great Dr. Santamour, master geneticist of the ARS-USNA-USDA and America's tree breeder, accepted this change as inevitable and believable. If you are going with the long, clumsy S.j., do cite him.



SOPH001 - *Sophora japonica* 'Winter Gold' ('Gold Standard') (Esveld Nursery) - twig and young stems very rich gold in winter. Leaves pale green to yellow in spring, later more green. Intro. to US by Don Shadow, imported from Japan. Not seen in the US until 2013, still not widely sold (May 2015). Image above copyright owned by and courtesy of Laurence C. Hatch, imaged at the JC Raulston Arboretum, March 18, 2012. Images are not part of OROC Data Sharing.

SOPH002 - *Sophora japonica* 'Klanderman's Cascade' - habit erect with secondary limbs drooping or hanging down vertically, not as widely mounded and wider than tall as the popular 'Pendula', very straight main trunk (apparently not low and contorted as 'Pendula'). Or: Klanderman's Nursery, The Netherlands, intro. widely in 2016, Web: <http://www.grootgroenplus.nl/uploads/2016/noviteitent/Styphnolobium%20japonicum%20%E2%80%98Klanderman%E2%80%99s%20Cascade%E2%80%99.pdf>, accessed 10.17.2016

SORB001 - Sorbus AUTUMN SPIRE® 'Flanrock' (Bluebell Nursery) - 4m tall x 1m wide (10 years), narrow to columnar, erect, compact. Leaves in fall rich red to orange shades, often very showy in fall. Fruit mustard yellow, reddish centers. Seedling from 'Joseph Rock'.

SORB002 - Sorbus 'Showa' - Offered by www.crug-farm.co.uk, accessed 2.16.2016

SORB003 - Sorbus aucuparia LUXOR™ 'Advance' - habit columnar, very full, dense. Leaves dark green. Fruit bright orange, showy in fall. Or, In: Advance Nursery, Grand Forks, BC, Canada, their own selection, <http://www.nurseryavailabilities.com/Advance/web/docs/catalogue.pdf>, accessed 1.15.2017. The name is apparently in reference to the numerous tall columns in the Egyptian temple at Luxor.

SPIR001 - Spiraea media BLUE KAZOO® 'SMSMBK' (Spring Meadow Nursery) - 2-3 ft. tall x wide. Leaves glaucous blue at first, later more greenish-blue with some red tints, appearing a bit lavender-purple to blue-green from a distance, later more green. Flowers white in large domed corymbs. Cold hardy to -40 deg. F. Marketed by Spring Meadow Nursery and Proven Winners./

SPIR002 - Spiraea x bumalda SUPERSTAR™ 'Denistar' - 24-36 in. tall x 36-48 in. wide, vigorous yet compact, much smaller than parent 'Froebelii'. Leaves with scarlet to dark red new growth, becoming a darker green than this species old choices, fall shades in copper to bronze, often very showy. Flowers in corymbs in rich violet-pink, fairly typical of modern hybrids from images. [US Plant Patent #22432](#) to Denis Levac in 2012 as sport of 'Froebelii' in 2004.

SPIR003 - Spiraea LIGHTNING STRIKE™ 'Conalex' - 18 in. tall x 30 in wide, very compact to dwarf, mounded. Flower inflor. of 12-20 flowers, to dark to medium pinkish-mauve (parent 'Lemondrop' is more medium pink, less mauve), slightly darker centers, some repeat blooming in summer. Leaves lime green tinged golden-yellow to chartreuse-yellow, may be light green in shade, resistant to sun damage more than 'Lemondrop'.. [US Plant Patent #21473](#) , Selected by Mike Farrow, Holly Hill Farms, Maryland, USA as chance seedling of 'Lemondrop', which Farrow also patented in 2004.

SPIR004 - Spiraea 'Sparkling Champagne' - 1-2m tall x 1.5-2.0m wide, dense, multi-stemmed. Flowers white with distinct violet-red eyes, red stamens, will rebloom is lightly sheared. Leaves light to medium green, fading to lime green, tips orangish-red at first, another reason to shear it after the first bloom period, fall colors include yellow, lime, and fiery orange to light red shades. Bred by Peter Moore, bredbypetermoore.co.uk, accessed 5.28/2015, using S. hayatana x S. japonica

SPIR005 - Spiraea nipponica GOLDEN GLITTER™ 'Verspi1' - 3-4 ft. tall x wide, dense, compact. Flowers near white, flat-faced, big near old centers, petals very orbicular, like miniature Potentilla in white but in large heads. Leaves light yellow finely speckled and spotted medium green to lime, a true chimeral variegation, not gold or lime suffusions as other clones, new tips mostly yellow, overall a chartreuse look, technically green glitter on a gold base. [US Plant Patent #25098](#) to Bert Verhoef, Netherlands on Nov. 25, 2014 as sport of S. nipponica 'Halward's Silver'

SPIR006 - Spiraea GOLDWING™ 'Bridixsept' - much as 'Little Princess' but leaves rich golden-yellow, paler by summer, not-burning. andre-briant.fr, accessed 5.21.2015.

SPIR007 - Spiraea japonica MAGNUM ROSE™ 'Brolanspi' - 2m tall x 1.5m wide, robust, vigorous, very strong for the species, elegant. Flower corymbs bright pink to mauvish-pink, later fading nicely to pale pink. Leaves light green, tipped red in spring, later green, yellowish in fall. andre-briant.fr, accessed 5.21.2015.

SPIR008 - Spiraea betulifolia PINK SPARKLER® 'Courispi01' - 50-60cm tall x 60-80cm wide, very dense, compact, mounded. Leaves bright green, approaching lime at first, very showy. Flowers light pink in corymbs (the first non-white clone of this species in the trade), if cut back will flower lightly again in late summer. Or: Jacques Couturier

**SPIR009 - Spiraea nipponica SNOW COVER® 'Bokrashow' - 50cm tall x wider, low, spreading. Flower cymes numerous, pure white, cymes flat, darker center. Leaves dark matt green.
In, ph: <http://www.boot.nl/en/new-products>, accessed 10.21.2016.**

SPIR010 - Spiraea japonica DOUBLE PLAY™ GOLD

SPIR011 - Spiraea japonica DOUBLE PLAY™ ARTISAN® - <https://www.provenwinners.com/plants/spiraea/double-play-artisan-spiraea-japonica>, accessed 3.12.2017

SPIR012 - Spiraea japonica DOUBLE PLAY™ BIG BANG™ - <http://www.monrovia.com/plant-catalog/plants/3040/double-play-big-bang-spiraea/>, accessed 3.21.2017

SPIR013 - Spiraea japonica DOUBLE PLAY™ RED - <http://www.waysidegardens.com/double-play-red-spiraea/p/36988/>, accessed 3.12.2017

SPIR014 - Spiraea japonica DOUBLE PLAY™ CANDY CORN™ - <https://www.provenwinners.com/plants/spiraea/double-play-candy-corn-spiraea-japonica>, accessed 3.12.2017

SPIR015 - Spiraea japonica DOUBLE PLAY™ PAINTED LADY™ - <https://www.provenwinners.com/plants/spiraea/double-play-painted-lady-spiraea-japonica>, accessed 3/12/2017

SPIR016 - Spiraea japonica POPROCKS™ RAINBOW FIZZ™ 'Matgold' - 3-4 ft. tall x wide, subglobose, compact. Flowers near red in bud (from images a more violet-red to magenta-red) later rich, medium pink. Leaves copper to orange at first, later red tipped, eventually yellow with reddish tints, copper-red in autumn. web: <https://bloomineasyplants.com/plants/rainbow-fizz/>, accessed 3.10.2017, includes video presentation

**SPIR017 - Spiraea japonica 'Odessa' - 30cm tall x wide as young plants (parent app), moderately vigorous, compact, subglobose. Leaves dark green. Flower heads deep rosy-pink.
web: <https://www.hogendoornholland.com/nl/catalogus?query=spiraea>, accessed 3.12.2017. Pat: [US App# 20170042074](#), filed 8.4.2016, accessed 3.10.2017, to Herman Geers, Boskoop, The Netherlands, as part of a breeding program in 2005, a cross of 'Little Princess' x 'Bullata'. See patent app link here for more details.**

SPIR018 - Spiraea betulifolia 'Island' - web: <https://www.hogendoornholland.com/nl/catalogus?query=spiraea>, accessed 3.12.2017

SPIR019 - Spiraea betuifolia TOR GOLD® - web: <https://www.hogendoornholland.com/nl/catalogus?query=spiraea>, accessed 3.12.2017

SPIR020 - Spiraea x bumalda 'Zigereunerblut' - web: <https://www.hogendoornholland.com/nl/catalogus?query=spiraea>, accessed 3.12.2017

SPIR021 - Spiraea japonica 'Odensala' - web: <https://www.hogendoornholland.com/nl/catalogus?query=spiraea>, accessed 3.12.2017

SPIR022 - Spiraea japonica SPARKING CHAMPAGNE® - web: <https://www.hogendoornholland.com/nl/catalogus?query=spiraea>, accessed 3.12.2017

SPIR023 - *Spiraea nipponica* 'Gerlves Rainbow' - web: <https://www.hogendoornholland.com/nl/catalogus?query=spiraea>, accessed 3.12.2017

SPIR024 - *Spiraea x vanhouttei* 'Gold Fountain' - web: <https://www.hogendoornholland.com/nl/catalogus?query=spiraea>, accessed 3.12.2017

SPIR025 - *Spiraea japonica* WALBERTON'S® PLUMTASTIC 'WALPLUM' - habit compact, "tidy", minimal trimming required, leaves rich purple at first, giving color as the shrub grows, flower heads bright cerise, most of the summer. Or: Walberton's Nursery, UK, intro. by Plant Haven, <http://planthaven.com/plant/spiraea-plumtastic/>, accessed 5.10.2017

STAC001 - *Stachyurus praecox* 'Sterling Silver' (Nurseries Caroliniana) - white margined leaf.

STAC002 - *Stachyurus praecox* 'Diane' (Nurseries Caroliniana) - pink flowered, near red markings

STAC003 – *Stachyurus chinensis* 'Goldbeater' – new growth rich gold, becoming greener. Esveld.nl, accessed 4.24.2015

STAC004 – *Stachyurus chinensis* 'Wonderful Image' – leaves very faintly mottled, blade narrower, more acuminate. So, in: Esveld.nl, accessed 4.24.2015

STAC005 – *Stachyurus chinensis* 'Joy Forever' – leaves broadly margined yellow to 45% surface, central green zone an irregular tree shape, margins tinged pink in fall Esveld.nl, accessed 4.24.2015

STAC006 – *Stachyurus chinensis* 'Senna' -

STAC007 – *Stachyurus himalaicus* 'Dolly' – 3m tall (10 years). Flowers yellow, often cream in common species variants. Esveld.nl, accessed 4.24.2015

STAC008 - *Stachyurus chinensis* 'Carolina Parakeet' - Petioles pinkish, contrasting. Leaves centrally marked yellow to greenish-yellow, subtle chartreuse, 45-80% of blade surface, the central zone sometimes well defined, other times 3-5 lobed and more asymmetrical lower portion of midrib above often red to pinkish. Found by Tim Alderton, JC Raulston Arb, as reverse sport of margined 'Magpie'.

STEW001 - *Stewartia pseudocamellia* 'Pewter' ('Pewter Form #1' invalid name) - leaves with distinct pewter or silvery sheen. In: www.dancingoaks.com, accessed 10.17.2016.

STYR001 - *Styrax japonicus* MARLEYS PINK PARASOL® 'JLWeeping' (Bailey Nurseries) - combines weeping habit and true pink flowers. Trademarked confirmed registered in US by OROC search at uspto.gov. The old cultivar name 'Rubra Pendula' (known over a decade at the Raulston Arboretum and very pretty there) or what European's like 'Pink Chimes Weeping' appears to be similar and should be compared in your plant trials.

STYR002 - *Styrax japonicus* 'Evening Light' (Hawksridge Farms)

STYR003 - *Styrax japonicus* 'Jippe-Kawamure' (Esveld Nursery)

STYR004 - *Styrax japonicus* 'Peter Pan' (Esveld Nursery)

STYR005 - *Styrax japonicus* 'Spring Showers' (USDA/USNA)

STYR006 - *Styrax americanus* 'Baby Blue (JC Raulston Arboretum)

STYR007 - *Styrax japonica* 'Frosted Emerald' - slower than species typical. Leaves heavily mottled cream in very irregularly patterns, some random, others near margin with some submarginal banding.

STYR008 - *Styrax japonicus* 'Bombastic' - In: Esveld.nl, accessed 4.24.2015, name only, no image, no description.

STYR009 - *Styrax japonicus* 'Tinkerbelle' - smaller tree, 3m (10 years). Leaves smaller, refined, often slightly folded. Esveld.nl, accessed 4.24.2015

STYR010 - *Styrax japonicus* 'Wespelaar' - leaves very wide, much as 'Fargesii', green, becoming more brownish-purple in fall. Flowers numerous, white, very showy. Selected at Arboretum Wespelaar, Belgium, but not listed under their own selections of cultivars on their website, accessed 5.20.2015. Offered by panglobalplants.com and esveld.nl on this same date.

STYR011 - *Styrax japonicus* 'Lady Bell' - known from the J.C. Raulston Arboretum Accession# 044282 on 12/12/2014

STYR012 - *Styrax japonicus* f. *rubricalyx* 'Hyme' - flower calyx and pedicel pink to red-tinged. In: Larch Cottage Nursery, England.

STYR013 - *Styrax japonicus* 'Fat Man' - subglobose, compact, semi-dwarf. Or: John Allen, Shiloh Nursery, Harmony, North Carolina, USA

STYR014 - *Styrax japonicus* 'Martins Red Star' ('Martin?') - leaves purplish-red, apparently like 'Evening Lights'

STYR015 - *Styrax japonicus* 'Choco' - leaves with new growth purplish to chocolate tones, quickly green. In: <http://www.achat-vente-palmiers.com/en/styrax/1232-styrax-japonica-choco.html>, accessed 10.21.2016

STYR016 - *Styrax japonicus* 'June Snow' - narrow tree, subcolumnar to ovoid in time, flowers typical white, very numerous, sweet-scented, attracting bees. Or: Chris van der Wurff as hybrid, intro. c. 2015 in Europe by Akkermans, The Netherlands.

SYCO001 - x *Sycoparrotia semidecidua* AUTUNNO ROSSO 'Satori' - new cross of parents, more cold hardy than existing clones. Leaves bright red to dark red in fall. Or: Marco Satori. In: Van Aart Boomkwekerijen, The Netherlands since about 2016. Web: [http://www.grootgroenplus.nl/uploads/images/nieuwigheden/2015/Sycoparrotia%20semidecidua%20%E2%80%98Satori%E2%80%99%20\(AUTUNNO%20ROSSO\).pdf](http://www.grootgroenplus.nl/uploads/images/nieuwigheden/2015/Sycoparrotia%20semidecidua%20%E2%80%98Satori%E2%80%99%20(AUTUNNO%20ROSSO).pdf),

accessed 5.11.2017

SYMP001 - Symphoricarpos PROUD BERRY™ 'Sofie' - 3-4 ft. tall x 4-5 ft. wide. Fruit bright pink, very showy. Leaves notably bluish-green, very round obtuse apex. Pat, or: US# 21226 to Catharina Marie Hoekstra-Arisz, The Netherlands., considered an improvement on AMETHYST™. In: Spring Meadow Nurseries and Proven Winners to US trade.

SYMP002 - Symphoricarpos x chenaultii (Hancock Group) HANCOCK CARPET® 'Kolmcover' - 30cm tall x very wide, decumbent to prostrate, low, creeping, dense, covering and suppressing weeds. Leaves bright to medium green, matt finish. Fruit and flowers apparently not notable. In, ph: <http://www.boot.nl/en/new-products>, accessed 10.21.2016, Ns, id: because of the name choice we might assume it derives from S. x chenaultii 'Hancock'.

TAMA001 - Tamarix chinensis 'Binhaicui' - more vigorous, straight trunk, denser foliage, leaves darker green, "without blossoms". Recommended for use in drought, saline, and difficult conditions. Or: Hebei Norman University of Science and Technology, China as a natural mutaiton. web: http://en.cnki.com.cn/Article_en/CJFDTOTAL-YKE201603016.htm, accessed 5.1.2017

TAXO001 - T. distichum LINDSEY'S SKYWARD™ 'Skyward' (Monrovia)

TAXO002 - Taxodium distichum 'Cody's Feathers' (JC Raulston Arboretum) - legacy name, registratrion requested

TAXO003 - Taxodium 'Banita' (T. distichum x T. mucronatum) - 80 ft. tall x 40 ft. wide in China, Texas plants at SFA were 14 ft. in 3 years, vigorous, neat form, not producing knees. Leaves light emerald green, evergreen in USDA 8, less so in USDA 7. Reduce\d Cercospora leaf blight. Hardy to USDA 7. Origin: China, controlled hybrid, introduced to US by Dr. David Creech, Stephen F. Austin State University, tested there as T502. We first say it sold as mailorder by www.camforest.com, accessed 4.13.2015.

TAXO004 - Taxodium distichum 'Boxer's Path' - compact, sport of witches broom, 2-4 inches a year. Found by Mr. Umar in Philadelphia, Pennsylvania, USA not far from the Museum of Art make famous by bozer Rocky Babloa of movie fame and a statue there today. Conifertreasury.org, version 7.0, accessed 5.29.2015.



TAXO005 - *Taxodium distichum* 'Jims Little Guy' - dwarf to semi-dwarf, erect, tufted and cloud-like at times, generally on the theme of 'Peves Minaret' but in some ways different, too early to define in detail. Found at JBerry Nursery, Grand Saline, Texas as broom seedling. *Taxodium* expert Dr. David Creech says it can be rooted with careful cutting selection unlike 'Peve Minaret' (which is grafted and thus rare) and thus has potential for wider use. Image above copyright owned by and courtesy of Laurence C. Hatch, imaged at the JC Raulston on April 17, 2016, still it's in spring overfurlings but distinctive already.

TAXO006 - *Taxodium distichum* 'Twisted Logic' - twigs contorted, very showy in winter. Tom Cox, Georgia, found as seedling. coniferkingdom.com , accessed 5.29.2015

TAXO007 - *Taxodium distichum* APACHE CHIEF® 'Nelson' - 50 ft. vigorous, pyramidal, later more broadly spreading, dependable central leader, wider than 'Shawnee Brave'. US PP# 12502, widely known to date as 'Nelson', this trademark name not widely seen before. Offered by www.heritageseedlings.com, online Wholesale Catalog 2015-2016 (PDF), accessed 2.16.2016

TAXO008 - *Taxodium distichum* var. *imbricarum* FOX RED™ 'Red Fox' - narrower (columnar-conical) as is this variety or subspecies, rich bronze to bronzy-red fall colors. Or: Bartlett Trees, Charlotte, North Carolina In: www.boldspring.com, accessed 2.28/2016

TAXO009 - *Taxodium distichum* APACHE CHIEF® 'Nelson' - 50 ft. vigorous, pyramidal, later more broadly spreading, dependable central leader, wider than 'Shawnee Brave'. US PP# 12502, widely known to date as 'Nelson', this trademark name not widely seen before. Offered by www.heritageseedlings.com, online Wholesale Catalog 2015-2016 (PDF), accessed 2.16.2016

TAXO010 - *Taxodium distichum* var. *imbricarium* GREENFEATHER™ 'Carolyn Malone' - 50 ft. tall x 20 ft. wide, narrowly pyramidal to narrowly conical, a "light and airy" take on the species., seemingly with some tiers and horizontal aspect compared to more ascending stock of this variety known to the Registrars, uniform growth rate. Leaves light green, soft, more feathery, reliably rusty orange in fall. As this variety often has narrow, closely clustered leaves in vertical columns, the foliage here appears to open wider and be more fern-like. Or: John Malone, Summershade Nursery, Georgia, USA. In, ph: <http://www.jfschmidt.com/introductions/greenfeather/index.html>, accessed 10.21.2016, as *T. ascendens* clone.

PENDING - *Taxodium distichum* 'Philly Boxer' = 'Boxer's Path'?

TAXU001 - *Taxus baccata* 'Intermezzo' (Buchholz Nursery)

TAXU002 - *Taxus caespitosa* 'Rezek's Gold' (Plant Delights, formerly *T. baccata* 'Aurescens Nana')

TAXU003 - *Taxus cuspidata* (Capitata Group) GOLDEN JEWEL™ 'KNI9901' - 10-15 ft. tall x 4 5-6 ft. wide, pyramidal, foliage bright yellow into summer, green later on. Offered by <http://www.klynnurseries.com>, 2013 Catalog/No Pricing, accessed 2.17.2016, their own introduction, found in a lot of 'Capitata' seedlings, trialed for "many years"

TAXU004 - *Taxus cuspidata* GOLDEN TREASURE™ 'KNI9902' - 3-5 ft. tall x 5-6 ft. wide, arching-spreading, similar to Pfitzer juniper habit, new growth bright gold, sunburn resistant. Offered by <http://www.klynnurseries.com>, 2013 Catalog/No Pricing, accessed 2.17.2016, their own introduction

TAXU005 - *Taxus x media* RISING STAR™ 'Oene' - 2m tall x 60cm wide in time, habit dense, very columnar, erect, 'Hicksii' look but faster than it and 'Hillii' too, uniform and neat without regular pruning, fine-textured foliage. Sex: male, no fruit. Pat: Euro PBR #34846 to De Buurte Kwekerijen. Web: <http://185.44.128.186/pla/pdf/tamrisi.pdf>, accessed 10.19.2016

TAXU006 - *Taxus cuspidata* 'Minute Weston' - 7 ft. tall x 8 in. wide, semi-dwarf and fastigate, an extreme version of pillar or column types, growth rate 6-8 in. a year, slower later, dark green, glossy. Or: Weston Nurseries, Massachusetts, USA. Said to be a scale for small gardens, rock gardens, containers where strong columnar stock would be too large in time.

TAXU007 - *Taxus x media* 'Nixe' - dwarf, upright.

TAXU008 - *Taxus baccata* ELEGANZA™ 'Her2009T01' - compact, can be trimmed erect or into subglobose forms, remaining dense, needles dark green. Or: Herplant, Beerse, Belgium, intro. 2015

TAXU008 - *Taxus baccata* SNOW LADY™ 'Her2009TO3' - leaves margined yellow to greenish-yellow at first, this variegation later near white, giving more of a frosty appearance than older variegated clones. Or: Herplant CVBA, Beerse, intro. 2015

TAXU010 - *Taxus baccata* EXOTICA™ 'Her2009T06' - dense, columnar, needles long, curled. Or: Herplant BVBA, Beerse, intro. 2015.

TAXU011 - *Taxus baccata* 'Bultinck Orange' - 1.3 m tall x 30 cm wide (10 years), narrowly erect, slow, needles 25 mm long, yellow at first, producing faint orange to amber tints in winter. Or: Antoine Bultinck, Belgium.

TERN001 - *Ternstroemia gymnanthera* 'Golden Bear' - registration based on patent at JC Raulston Arboretum, Raleigh, North Carolina, USA accessioned as 120829 in 2012.

TERN001 - *Ternstroemia gymnanthera* JULIET™ 'Broody' - 8-10 ft. tall x 5-6 ft. wide, compact, upright. Leaves maroon at first, later irregularly edged cream, some sectoral lines move into the blade from the apex downward. Web, in: <http://southernlivingplants.com/the-collection/plant/juliet-cleyera>, accessed 3.13.2017

Our nomenclatural standard for 400+ cultivars in *Thuja* and over 200 in *Platycladus* is Hatch's Cultivars of Woody Plants

THUJ001 - *Thuja occidentalis* 'Park Vlaanderen' (Buchholz Nursery)

THUJ002 - *Thuja occidentalis* GOLDSTRIKE™ (Wayside Gardens)

THUJ003 - *Thuja (standishii x plicata)* EMBER WAVES™ 'MonPin' (Monrovia, New 2015)

THUJ004 - *Thuja occidentalis* 'Golden Anne' (newplants.nl)

THUJ005 - *Thuja (plicata x standishii)* VIRGINIAN (Upshoot)

THUJ006 - *Thuja occidentalis* POLAR GOLD™ 'SMTOYB' - 144-188 inches tall, narrowly pyramidal, more vigorous than 'Sunkist', dense, much as 'Brandon' in form. Leaves yellow to gold all year, resistant to wind burn. USDA hardy to zone 3, more so than 'Sunkist'. US Patent #25388 on March 31, 2015 to Tim Wood, assigned to Spring Meadow Nursery, cross of 'Brandon' x unnamed male parent 2003, selected 2007.

THUJ007 - *Thuja occidentalis* 'Nuclear Blast' - 4-6 ft. tall x 3-4 ft. wide, irregular, foliage whi-like, filiform, a mix of adult and juvenile foliage types. Offered by <http://www.klynnurseries.com>, 2013 Catalog/No Pricing, accessed 2.17.2016, their own introduction

THUJ007 - *Thuja occidentalis* THIN MAN™ 'SMTOTM' - 30-40 ft. tall x 3-4 ft., narrowly fastigate, narrower and more vigorous than parent 'Ada' as well as popular 'DeGroot's Spire', moderate growth rate to vigorous. Leaves not bronzing in winter, bright green most of the year.. Wind resistant. Cold hardy to -40 Deg. F, more durable in winter than 'DeGroot's Spire'. US Patent# 25672 on July 7, 2015 to Tim Wood, assigned to Spring Meadow Nursery, cross of 'Ada' x unknown male, 2003, selected as superior seedling in 2007

THUJ006 - *Thuja occidentalis* POLAR GOLD™ 'SMTOYB' - 144-188 inches tall, narrowly pyramidal, more vigorous than 'Sunkist', dense, much as 'Brandon' in form. Leaves

yellow to gold all year, resistant to wind burn. USDA hardy to zone 3, more so than 'Sunkist'. US Patent #25388 on March 31, 2015 to Tim Wood, assigned to Spring Meadow Nursery, cross of 'Brandon' x unnamed male parent 2003, selected 2007.

THUJ007 - *Thuja occidentalis* HOT HEAD® 'RutThu#1' - 3-4 ft. tall x wide, subglobose dwarf, compact, original plant 31 in. tall x 24 in. wide when 'Holmstrup' parent was typically 57 in. tall x 48 in. wide at the same age and growing conditions. Leaves with "vibrant" but rich, dark green all year, not bronzing, "unparalleled texture". Proven heat and cold tolerant, USDA 3. Or: US Plant Patent# 26840 on June 21, 2016 to John M. Ruter, Bishop, Georgia, USA, selected at the University of Georgia, Athens, Georgia as seedling of 'Holmstrup' sown 2003, this being the darkest green and most compact of the five most elite seedlings. USA. Web: <http://gardenersconfidence.com/plants/hot-head-arborvitae>, accessed 6.24.2016

THUJ008 - *Thuja (plicata x standishii)* 'BFC68' - 4.25 m tall x 2m wide (10 years), slightly smaller than parent 'Green Giant', more compact and denser than parent 'Green Giant', more highly branched than most hybrids, 7.2 tertiary branchlets per stem vs. 2.2 per secondary on 'Green Giant', 10 quaternary branchlets vs. zero for 'Green Giant', lateral terminals often pendulous, "soft feathered texture", uniform. Leaves when mature darker green than 'Green Giant' (RHS 139A) versus RHS 147A and yellowish-green for 'Green Giant'. Pat, or: US# 26684 on May 3, 2016 to Benjamin Case Jr, Suffolk, Virginia, USA as sport of 'Green Giant' at Old Courthouse Nursery, Warsaw, North Carolina 2002. Lsp: JC Raulston Arboretum.

THUJ009 - *Thuja occidentalis* 'Nuclear Blast' - Offered by <http://www.klynneries.com>, 2013 Catalog/No Pricing, accessed 2.17.2016, their own introduction

THUJ010 - *Thuja occidentalis* 'Miss Frosty' - 1m tall x 60cm wide (10 years), semi-dwarf to compact, derived from 'Smaragd' but more compact, globose. Foliage semi-divergent, no adult or scale-like as species, medium to lime green, tips a very pale, frosty white to greenish-white. Pat: Euro PBR 2016/2093. In: Europe, 2016, introduced by Van Vliet New Plants. Ph, web: <http://www.grootgroenplus.nl/uploads/2016/noviteiten/Thuja%20occidentalis%20%E2%80%98Miss%20Frosty%E2%80%99.pdf>, accessed 10.22.2016

THUJ011 - *Thuja plicata* SILVER NICK® - 2-3 m tall (10 years), foliage cascading down, compact, drooping tips, slow. overall a frosty silvery-green to glaucous-green. In: <http://opt-hoz.ru/catalog/32/12180/>, accessed 10.21.2016

THUJ012 - *Thuja occidentalis* PRIMO™ 'IsPrim' - 6 ft. tall x 3 ft. wide, "sculpted™ spire", appearing to be of the Spiralis Group, suitable for mini-scapes and containers. Needles rich, deep green in summer, slighted muted in winter. Or, in: www.iselinursery.com, their own selection, accessed 10.17.2016

THUJ013 - *Thuja occidentalis* 'Quebec Weeping' - irregularly pendulous, branches going both up and arching, secondaries hanging down, vaguely more like *Chamaecyparis nootkatensis* Pendula Group than 'Pendula' of its own species, more delicate texture than 'Pendula'. Or: found in a hedge in Quebec, Canada. So, in: www.iselinursery.com, their own selection, accessed 10.17.2016

THUJ014 - *Thuja occidentalis* 'Angelie Smaragd' - pat: EURO CPVO PBR 2016/1439

THUJ015 - *Thuja occidentalis* SUNNY SMARAGD™ 'Goog023' - pat: Euro 2016/0921. Legacy name, already published, registration requested.

THUJ016 - *Thuja plicata* 'Sun-beam' - Compact, subglobose, semi-dwarf, suitable for small gardens. Needles rich golden-yellow at first, later more lime, and eventually medium green. Or: Szkolka Drzew, Poland, introduced 2015, as seedling of 'Kornik', a stronger, larger gold clone. Ph, web: <http://www.grootgroenplus.nl/uploads/2016/noviteiten/Prunus%20%E2%80%98Mieke%E2%80%99.pdf>, accessed 10.22.2016

THUJ017 - *Thuja occidentalis* DARK EMBERS® 'Lesdasma' - 85cm tall x 38cm wide (8 years), growth rates about 15cm a year, conical to columnar, very dense. Leaves dark green all year, not bronzing, a darker green shade than parent 'Smaragd' aka 'Emerald' which is a medium, bright green to sometimes olive green, twigs orangish and contrasting. Or: Jan Lescow, sport of 'Smaragd' in 1998 at Bokhold-Henredder, Germany, selected about 2002, US Plant Patent applied for 22 April 2015. Web: <http://www.dark-embers.eu/info/>, accessed 1.15.2017, following the new trend for new cultivars to have their own websites.

THUJ017 - *Thuja occidentalis* 'Spireandela' - 3.8 m tall x 71 cm wide (24 years), narrowly columnar, "loose upward spiral", slow, suitable for narrow hedge or specimen accent, foliage in dense, curved planes, these sprays more concave (less flat) and fan-shaped than 'Smaragd'. Pat, or: US# 27984 on May 9, 2017 to Franklin Semkow, Litchfield, Ohio, USA as seedling out 500 in 1980.

THUJ018 - *Thuja occidentalis* (Brabant Group) 'King of Brabant' - generally as the cultivar group but more stronger and upright, dense compact, "all new shoots grow straight up". Web: <http://www.newplants.nl/planten/t/thuja-occidentalis-king-of-brabant-pbr/>, accessed 5.10/2017

TILI001 - *Tilia* 'Jubilee' (Esveld Nursery)

TILI002 - *Tilia cordata* 'Debra's Delight' - leaves splashed and speckled yellow, cream, white, and green. Or, in: www.handynursery.com, their own introduction, accessed 5.16.2016

TILI003 - *Tilia mongolica* WINDANCER™ 'DurJake' also listed as 'DurWeep' - 30 ft. tall x 26 ft. wide, pyramidal, lower limbs weeping. Leaves ivy-shaped, uniquely shaped for the genus. Flowers yellow, fragrant, small, numerous. Or: Rich Durand. Prairie Trees Nursery

PENDING - *Tilia* 'Skinur' - more data needed.

TILI004 - *Tilia henryana* 'Kerdalo' - 10m or more, upright, strong, eventually a "full, founded crown". Leaves hairy and carmine at first, later a glossy green with bristled teeth. Flowers in fall, sweetly scented. web: <http://www.panglobalplants.com>, accessed 3.12.2017, their own introduction.

TILI005 - *Tilia cordata* 'Westonbirt Dainty Leaf' ('Westonbirt Dainty', 'Westonbirt' in part) - habit more compact, neat. Leaves smaller, more refined, finely-textured. In: first listed RHS Plant Finder 2001. Herbarium photo: <http://www.arboretumwespelaar.be/IdentificationKeysImageDetail.aspx?KeyID=17068>. Web: [https://www.forestry.gov.uk/pdf/Unique-tree-list-May-2012.pdf/\\$file/Unique-tree-list-May-2012.pdf](https://www.forestry.gov.uk/pdf/Unique-tree-list-May-2012.pdf/$file/Unique-tree-list-May-2012.pdf), accessed 5.1.2017

TILI006 - *Tilia platyphyllos* 'Zelzate' - <http://www.grootgroenplus.nl/uploads/Documenten/tilian-productsheet-EN.pdf>, accessed 5.11.2017

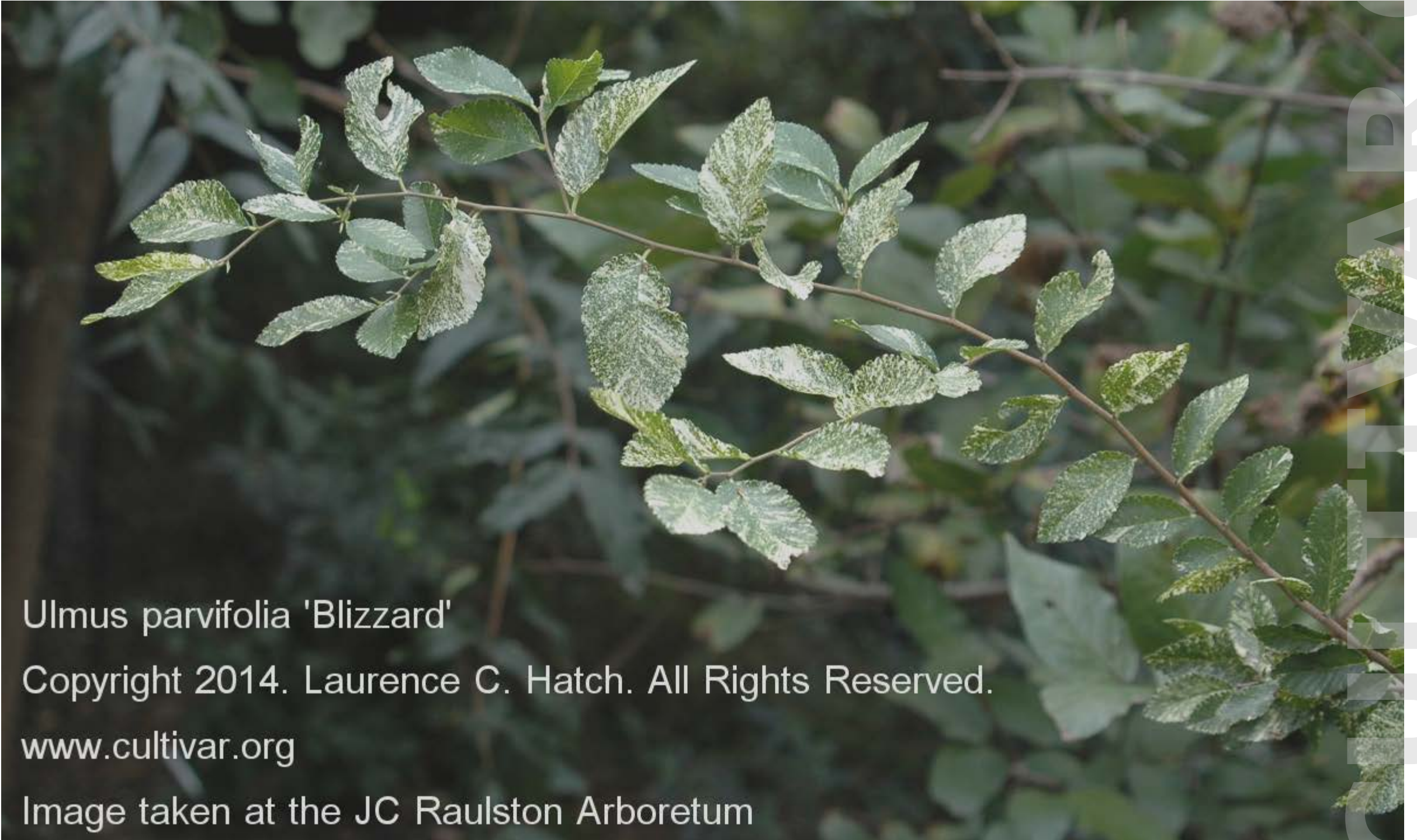
TORR001 - *Torreya nucifera* 'Snowcap' (Camellia Forest)

TRAC001 - *Trachelospermum asiaticum* 'Atsuba Chirimen' - image below is not part of OROC Data or Image Sharing.



TRAC002 - *Trachelospermum asiaticum* FLAT MAT (Ozbreed).

TSUG001 - *Tsuga canadensis* GOLDEN DUCHESS™ 'MonKinn' (Monrovia) - a golden weeper at last? maybe not but certainly closer than anything before.



Ulmus parvifolia 'Blizzard'

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www.cultivar.org

Image taken at the JC Raulston Arboretum

ULMU001 - *Ulmus parvifolia* 'Blizzard'.

ULMU002 - *Ulmus davidiana* var. *japonica* NORTHERN EXPRESS® 'Burgundy Glow' - 28 ft. tall x 24 ft. wide, smaller to medium sized for the genus, globose to subglobose, somewhat open branching. Leaves medium green in summer, becoming rich apricot orange to dark burgundy red in fall. Resistant to Dutch Elm Disease, minimal black leaf spot damage. Cold hardy to USDA 3. Selected at North Dakota SDtate University, introduced 2014. <http://www.ag.ndsu.edu/plantsciences/research/introductions/northern-empire> , accessed 5.12.2015.

ULMU003 - *Ulmus americana* COLONIAL SPIRIT® 'JFS-Prince II' - 65 ft. tall x 50 ft. wide, upright-arching (classic species vase look), symmetrical over time, strongly branching. Leaves dark green, mixed yellow shades in fall. DED (Dutch Elm Disease) resistant. USDA 4 hardiness. Selected by jfschmidt.com, accessed 5.16.2015, introduced 2016

ULMU004 - *Ulmus alata* 'Woodland' - 45 ft. tall x 40 ft. wide, more uniform than random seedlings, neater look, pyramidal at first, later more vase-shaped and spreading, vigorous and tough as species. Twigs winged in cork as the species, thus the name *alata* or "winged". Leaves slightly smaller than species typical, refined, improved quality in late summer when species often drops leaves early.

In, so, ph: <http://www.boldspring.com/trees/uag-std>, accessed 10.22.2016

VACC01 - *Vaccinium corymbosum* PINK ICING™ 'ZF06--79' - 3-4 ft. tall x wide, mounded to slightly spreading. Leaves semi-evergreen, new growth pink, glaucous blue, and light green, later medium green, very strong plants quite pink in new tips. Fruit large, sweet. BRAZELBERRIES® name not registered with OROC as it is applied to more than one genus and is thus not a taxonomic equivalent.

VACC002 - *Vaccinium* 'Nocturne'. Habit ornamental, vigorous, erect to slightly spreading. Leaves glossy green, showy. Flowers later in season compare to highbush clones, providing additional cold resistance. Fruit bright reddish-orange at first, showy in this state, later blue, maturing very dark blue to gunmetal black. For several weeks the contrast of bright new berries and very dark older ones provides high ornamental interest. Cold hardy similar to northern highbush clones, LT50 of buds is about 25 deg. C.Hexaploid.

Or: M.K. Ehlenfeldt, USDA-ARS, Marucci Center for Blueberry and Cranberry Research, Chatsworth, New Jersey 1993 as complex parentage involving *V. darrowii*, *V. ashei*, pink-fruited selections, and *V. constablaei*. Primary parents are 'Premier' and US 874, selected 1996 for further evaluation. Li: <http://hortsci.ashspublications.org/content/50/12/1825.extract>, HortScience 50" 1825-27 (2015)

VACC003 - *Vaccinium* 'Perpetua' - HortScience 50: 1828-29 (2015) - for sale as PERPETUA™ 'ORUS-61-1' despite having a US Plant Patent as 'Perpetua', a cultivar!

VACC004 - *Vaccinium vitis-idea* FIREBALLS 'Lirome' - "**robust" habit, fruit very numerous, earlier than typical in flowering and fruiting time, fruit persisting longer, fruit also larger than typical, red, cold hardy to -35 deg. C.** Web: <https://www.plantipp.eu/en/Plants/vaccinium-vitis-idaea-fireballs-liromepr-2/>, accessed 5.11.2017. Pat: Euro 46224. Aw: GrootGroenPlus Silver Medal 2016.

Our nomenclatural standard for 224 existing *Viburnum* cultivars is Hatch's Cultivars of Woody Plants.

VIBU001 - *Viburnum* SHINY DANCER.

VIBU002 - *Viburnum bracteatum* ALL THAT GLOWS™ - **Recommended photos and taxonomic comparisons:**
<http://www.inspection.gc.ca/english/plaveg/pbrpov/cropreport/vi/app00008946e.shtml>

VIBU003 - *Viburnum obovatum* 'Raulston Hardy' (JC Raulston Arboretum)

VIBU004 - *Viburnum dentatum* 'Golden Arrow'

VIBU005 - *Viburnum plicatum* SHARON KAY™ (Upshoot)

VIBU006 - *Viburnum* LIME MARTINI™ (Upshoot)

VIBU007 - *Viburnum tinus* ROYAL BABY 'Bridixhuit' - 1m tall x wide, compact, globose to subglobose, dwarf version of species. Leaves more narrow, elliptic-lanceolate to narrow elliptic. Flower heads white, very numerous, umbels to 2cm wide. Andre Briant.

VIBU008 - *Viburnum burejaeticum* MINI MAN™ 'PO17s' - subglobose, semi-dwarf, other same traits as the species Or: Montana Valley Farms, Helena, Montana. In: Scott Skogerboe, Fort Collins Wholesale Nursery via the Plant Select (2015 award, new for 2016 trade).

VIBU009 - *Viburnum plicatum* f. *tomentosum* LIME MARTINI™ 'Limartz' - 8-10 ft. tall x 6-8 ft. wide, subglobose to mounded. Flower heads tinged lime green over cream at first, later more cream and finally close to white with maturity. Web: <http://www.upshoothort.com/other-selection/lime-martini-doublefile-viburnum/>, accessed 6.24.2016

VIBU010 - *Viburnum plicatum* f. *tomentosum* SHARON KAY™ 'Shakaz' - 8 ft. tall x wide, wide-mounded to subglobose, more horizontal with age, top-grafting is also suggested by the originator. Flowers sterile type but in 3 rows of tepals or bracts. Leaves medium green, becoming dark burgundy red in fall. Or, in: <http://locustgroveplants.com/>, see <http://locustgroveplants.com/Sharon%20Kay%20Viburnum.htm>, Web: <http://www.upshoothort.com/other-selection/sharon-kay-doublefile-viburnum/>, accessed 6.24.2016

VIBU011 - *Viburnum* PEARLIFIC™ - Web: <http://www.dirrplants.com/viburnum-for-american-gardens.html>, accessed 6.25.2016

VIBU012 - *Viburnum x jackii* 'Prairie Classic' - **Floral cymes flat-topped, abundant, non-scented, white, very showy, usually May. Leaves dark green, leathery, disease and pest resistant, in fall a mix of green, green, and yellow shades, later dark maroon with yellow inner glows. Fruit green at first, later pink, then blue, finally black, resistant, showy.** USDA 4. web: http://www.classicviburnums.com/index.cfm/fuseaction/plants.plantDetail/plant_id/7237/index.htm, accessed 3.12.2017. Or: Gary and Susan Ladman, Classic Viburnums, seedling of *V. rufidulum* and thought to be a cross with *V. prunifolium*.

VIBU013 - *Viburnum plicatum* f. *tomentosum* 'Copper Ridges' - **compact, dome-shaped, densely spreading. Leaves as species but at first a showy copper to dark orange tone, later in fall with copper to dark red tones. Flowers as the forma in 2-3 in. heads. Fruit scarlet-red, becoming black, showy.** web: <http://www.grimmsgardens.com/shop/viburnum-copper-ridges/>, accessed 3.12.2017

VIBU014 - *Viburnum lentago* 'Deep Green' - leaves larger, darker green, very leathery and thick, becoming reddish in fall. Or: Reeseville Ridge Nursery, Wisconsin, USA. So: <http://www.classicviburnums.com>, accessed 6.25.2016, not a good cultivar name under the ICNCP as it is simply descriptive and likely to be used more than once.

VIBU015 - *Viburnum nudum* 'Callaway Large Leaf' - presumed to be from Callaway Gardens(?): So: <http://www.classicviburnums.com>, accessed 6.25.2016

VIBU016 - *Viburnum nudum* 'Callaway Small Leaf' - presumed to be from Callaway Gardens(?). So: <http://www.classicviburnums.com>, accessed 6.25.2016

VIBU017 - *Viburnum nudum* 'Earthshade' - 6-10 ft. tall, more compact than 'Winterthur'. Leaves glossy, dark green, turning orange, red, and yellow shades in fall. So: <http://www.classicviburnums.com>, accessed 6.25.2016

VIBU018 - *Viburnum prunifolium* 'Forest Ridge' - dense, erect ovoid form, large shrub to small tree. Leaves rich burgundy red in new growth or green tinged red, later glossy dark green, dark maroon red again in fall. Or: Dan Moore, McKay Nursery, Wisconsin, USA. So: <http://www.classicviburnums.com>, accessed 6.25.2016

VIBU019 - *Viburnum trilobum* 'Jewell Box' - 18 in. tall x 24-30 in. wide, true dwarf, very compact, low dense mound or tufted mound. Leaves reddish in new tips, later dark green, Flowers very few or much reduced in size. Or: Darrell Kromm, Reeseville Ridge Nursery, Wisconsin, USA. So: <http://www.classicviburnums.com>, accessed 6.25.2016

VIBU020 - *Viburnum cassinoides* BUCCANEER™ 'KLM B' - 4-6 ft. tall x 4-7 ft. wide, globose. Leaves medium green, a nice mix of orangish to red shades in fall, usually then with a paler, yellowish midrib. Flowers creamy-white, showy, scented. Fruit a blend of green to pink, red, blue, and later black. Durable as many in this genus and will enjoy boggy, wetter situations too. Or: Roy Klehm, Song Sparrow Nurseries, before 2005, popularity and availability improved about 2015.

VIBU021 - *Viburnum opulus* 'Exuberant' - www.cistus.com, accessed 3.29.2016

VIBU022 - *Viburnum cassinoides* DEFENDER™ 'KLMD' - 5-8 ft. tall x 4-7 ft. wide (10 years). Flowers cream, yellow anthers, larger than species typical. Fruit green, becoming pink, then red, then blue to black (as species). Leaves rich red to orange and red in fall, showy. Considered a basic species improvement clone. Or: Klehm, Song Sparrow Nursery, introduced 2015.

VIBU023 - *Viburnum opulus* OH Canada™ 'SMVOPHDR' - 6-8 ft. tall x 6.0-6.3 ft. wide. Leaves "pineapple-gold", highly burn resistant, new growth very vivid red, resembling miniature red maples like the Canadian flag, transitioning to the lime and chartreuse look by rich red suffusions on the blade, mostly intense on lower half. Ch: to -40 deg. F. In, ph: http://springmeadownursery.com/plants_details.php?id=87890, accessed 10.17.2016

VIBU024 - *Viburnum plicatum* var. *tomentosum* WABI-SABI™ 'SMVPTFD' - 2-3 ft. tall x 3-4 ft. wide, dwarf by variety standard, low, strongly horizontal. Flower infl. of the lacecap (mixed sterile and fertile) type, bright white overall. Leaves of "high quality", appear to mostly dropping in images provided to date. In, ph: http://springmeadownursery.com/plants_details.php?id=88320, accessed 10.17.2016

VIBU025 - *Viburnum dilatatum* TANDOORI ORANGE™ 'SMNVDMDO' - 6-8 ft tall x 7-9 ft. wide. Fruit orange overall, "the first orange-fruited linden viburnum", photos suggest an orangish-amber color heavily tinged red, coral and rich orange shade near the fruit apex, being bicolored only on close inspection. Flowers white, numerous. Leaves medium green, orangishg-red in fall. In, ph: http://springmeadownursery.com/plants_details.php?id=87340, accessed 10.16.2016

VIBU026 - *Viburnum obovata* 'Best Dense' ('Best Densa' invalid use of Latin) CORRECTED NAME - 7 ft. tall x 2 side, denser, mounded, "giant muffin" (Bold Spring Nursery). Leaves reddish in fall. Ch: USDA 8, species is genera hardy in USDA 7. Flowers in cymes as species, white, numerous. In, ph: <http://www.boldspring.com/trees/vod-ftg>, accessed 10.22.2016

VIBU027 - *Viburnum dentatum* var. *deamii* ALL THE GLITTERS® 'SMVDLS' - 4-6 ft. tall x wide, compact. Leaves glossy dark green, slightly rugose, reflecting much white and frankly shades of mint green light too, hence glittering a bit. Flower heads white as the variety, showy. Pat: US# 26576. web: <https://www.provenwinners.com/plants/viburnum/all-glitters-arrowwood-viburnum-viburnum-dentatum-var-deamii>, accessed 3.12.2017.

VIBU028 - *Viburnum odoratissimum* COPPERTOP™ 'Brant 01' - 6-8 ft. tall x 5-6 ft. wide, upright-mounded. Leaves rich bronzy-copper to orangisg-red and copper-pink at first, later a more typical dark green. USDA 9, though we have seen the species do much better in terms of 7b. web: <http://southernlivingplants.com/shrubs/plant/coppertop-sweet-viburnum>, intro. in the Souther Living Collection, accessed 3.12.2017

VIBU029 - *Viburnum lusonicum* SNOW JOEY 'BLV01' - 6-8 ft. tall x 4-6 ft. wide. Flower heads white as species, open clusters, lacy effect. Fruit bright red, showy. USDA 7. Web: <http://southernlivingplants.com/new-introductions/plant/snow-joeey-viburnum>, accessed 3.12.2017

VIBU030 - *Viburnum odoratissimum* SUGAR COOKIE™ 'Compact 01' - 5-6 ft. tall x wide, erect, compact, much smaller than species. Leaves shorter, smaller, medium to bright light green, more obtuse or rounded at the apex on occasion than the full-sized species. USDA 8 but species often takes 7b with ease. web: <http://southernlivingplants.com/new-introductions/plant/sugar-cookie-viburnum>, accessed 3.12.2017.

VIBU031 - *Viburnum lantana* 'Gold Edge' - Slower than species typical. Leaves smaller than species typical, thinnly and irregularly edged yellow, this chimera intruding into the blade as sported lines or sectors, 3-8% chimera, has the look of a *Plectranthus* variegated in fact. Or: Dr. Eugene Coffman, Ridge Road Nursery, Bellevue, Iowa, USA. In, web: http://www.classicviburnums.com/index.cfm/fuseaction/plants.plantDetail/plant_id/7045/index.htm, accessed 3.12.2017

VIBU032 - *Viburnum plicatum* f. *tomentosum* 'Leachs Compact' ('Leach's Compacta' invalid post-1959 Latin) CORRECTED NAME - 4-5 ft. tall x wide, compact, very dense. Flowers of the sterile, snowball-type head., in my experience somewhat of an more elegant loose snowball compared other big doubles in the genus. Leaves reddish in autumn, and possibly a rich rich burgundy to deep purple as seen on the Dawes Arb. website, <http://dawesarb.arboretumexplorer.org/taxon-29076.aspx>.

VITE001 - *Vitex agnus-castus* DELTA BLUES™ (Wayside Gardens)

VITE002 - *Vitex agnus-castus* 'Riverbanks White' (Nurseries Caroliniana)



VITE003 - Vitex agnus-castus BLUE DIDDLEY®. Image owned by and courtesy of www.provenwinners.com.

VITE004 - Vitex negundo 'Little Madame' - More compact and dense than 'Heterophylla', having shorter internodes and more branching than it. Flowers violet-blue (RHS 85B bud becoming 94B) and dark violet at the tip (RHS N88A, 94B), blotched white (RHS N155B) on anterior lip, panicle 8 cm long (mean), 25 to 53 flowers per inflorescence, subpanicles 2-4 (vs. 2-6 on 'Heterophylla'), petals 6 mm x 3 mm, bloom period about typical of parent 'Heterophylla' but in 2013 their trials bloomed one week later than the parent. Leaves 7 cm long x 5 cm wide, of 3-5 leaflets, entire to jagged, acuminate.

Pat. or: US Patent Applied for August 4, 2016 to Carol D. Robacker and David Knauff, University of Georgia, Athens, Georgia, USA, from irradiated seeds of 'Heterophylla' in 2006.

VITE005 - Vitex negundo 'WHIT L' - 3-4 ft. tall x 5-6 ft. wide, habit compact, much branched, dwarf, densely held foliage. Leaves darker green from new growth of medium green tinged light purple near the base, 3-5 leaflets, densely clusters at the ends of shorter branchlets. Flowers sterile, bluish-purple, panicles 4-6 inches long x 1.0-1.5 in. wide, buds grayish blooming in Oklahoma up to 3-4 weeks, being a longer bloom period of all selection known to the originator over his many year's experience. Pat. or: US Patent Applied for July 28, 2016 to Carl E. Whitcomb, Stillwater, Oklahoma, USA selected from 8000 seedlings which were 11 generational descendants from original research begun in 1986.

WEIG001 (REGISTRATION AMENDED 5.10.2017) - Weigela florida BURGUNDY FIRE™ 'Wings of Fire' is being marketed by HGTV in the US under the cultivar name 'Wings of Fire' but they state their stock was selected by Henry Kolster of Boskoop in 2000. We have a nomenclatural tangle since WINGS OF FIRE™ (our original registered name) was already published by a number of growers, in print and web form as trademark. Examining Kolster's US Patent #21920 it is clear he intends 'Wings of Fire' as a cultivar name. Habit is 75cm tall, compact, leaves very broad (hence wing-like), stems red and showy, bronze-red at first in full sun, a bright form. Resistant to wind and rain damage.,

WEIG002 - Weigela SONIC BOOM PEARL

WEIG003 - Weigela RUBY FUSION™ (Star) - 3-4 ft. tall x wide. Flower corolla pinkish-red becoming dark ruby red, open campanulate with spreading lobes which are much incised and undulate than common for this genus, stamens cream to white, showy for contrast. Leaves chartreuse to yellow-green, sometimes very yellow in sunny, new tips, the very newest leaves may have very thin ruby red margins, pictotree style which do not last long, calyx lime to chartreuse, also with these dark red edges and tints, the blade finely serrulate and also undulate, broadly so but this almost creating the look of crenations or small shallow lobes.
Bred by NovaFlora LLC, introduced 2014 via Star Roses and Plants.

WEIG004 - Weigela LEMON ICE™ (Lake County Nursery) - pale yellow flowers in early April, showy red stems too.

WEIG005 -Weigela RED TWEETIE BIRD™ (Lake County Nursery) - dark green leaf, bright red flowers on strong plants of 4 ft. tall.

WEIG006 - Weigela MOR-COLORFUL™ 'Morcolzam' - 4 ft. tall x 5 ft. wide, subglobose, compact. Leaves broadly margined greenish-yellow becoming more creamy-yellow, chimera about 20-35% surface, slightly rugose, reminding one of a good Cornus florida variegata. Flowers light pink in bud, opening all white. USDA 5. Lake County Nursery, intro. c. 2013.

WEIG007 - Weigela 'Blazeaway' - 30-40 cm tall x 50cm wide, originator likes it grafted high on 'Bristol Ruby' for standard 1.5-2.0m tall, forming an arching, cascading show plant. Flowers medium pink, very tubular, Digitalis-like, often reblooming later in summer. Bred by Peter Moore, UK 1990 as species W. florida x 'Evita'. Leaves medium green, tinged medium to dusky dark red in fall, showy.

WEIG008 - Weigela ALL SUMMER RED™ or DATE NIGHT™ CRIMSON KISSES™ 'Slingco 1' ('Slinco', 'Slingco') - 3 ft. tall x wide, compact to semi-dwarf (more so than parents 'Red Prince' and 'Evita'), subglobose Leaves green. Flowers rich pinkish-red to medium crimson-red to medium-violet- red, definitely more than cherry or tomato tones here, much pink to violet in the background, well named for "lipstick red" kisses, commercially thought in the cosmetic industry to be something of a hot magenta-red or glowing rose-red (May 2015). USDA 4 hardiness. US Plant Patent #23654 on June 11, 2013 to Gijsbertus Verhoef, Hazerswoude, Netherlands 2005, cross of 'Evita' and 'Red Prince', selected 2007. The originator Bert Verhoef, bertverhoef.com, accessed 5.28.2015 uses the ALL SUMMER RED™ trademark while Monrovia has used CRIMSON KISSES. The various spellings of the cultivar name, including on the originator's website, can lead to confusion. 'Slingco 1' is what appears in the US Patent Office records.

WEIG009 - Weigela (also sold in DATE NIGHT™ Series) MAROON SWOON™ 'Slingo 2' - 1.3-1.5m tall x 80-100cm wide, much taller than the originator's CRIMSON KISSES™, upright-rounded, compact. Flower corolla color dark rich red all year, uniformly colored, stamens white to cream, contrasting. Leaves dark green. Selected by Gijsbertus Verhoef, Netherlands. Connonnurseries.com, accessed 5.27/2015

WEIG010 - Weigela TUXEDO™ or EBONY AND IVORY™ 'Velda' - 80-100cm tall x 1.0-1.3m wide. Flower corolla color near white, campanulate, semi-open among modern hybrids, calyx much as the leaves, generally a dark burgundy-purple in full anthesis, throat slightly gold or yellow tinged but not bodily so, a small gold throat or stripe at best, semi-showy as such for contrast. Leaves very dark brownish-purple appearing near black, the cultivar name being a contrast black and white as with the tuxedo or "black tie and tails" approach to fancy, formal dress. Bred by Gijsbertus Verhoef, Netherlands. Mr. Verhoef at bertverhoef.com, accessed 5.28.2015, uses the EBONY AND IVORY™ trademark.

WEIG011 - Weigela MINOR BLACK™ 'Verweig3' - 2-4 ft. tall x wide, mounded to compact. Leaves dark maroon to blackish-purple. Flower corolla deep pink. Bred by Bert Verhoef, bertverhoef.com, accessed 5.28.2015, intro. c. 2006.

WEIG012 - Weigela florida COCO KRUNCH® 'WFMOBLA' - 2-3 ft. tall x w wide, very compact, neat, mounded. Leaves dark ruby-red to brownish-red. Flower corolla "soft red", appearing more reddish-magenta in the image provided. USDA 4 "due to tis Canadian parentage". Or, in: "new exclusive from Monrovia, offered online 8.1.2016, also listed as a 2017 featured plant"
Web: <http://shop.monrovia.com/coco-krunchtm-weigela-36571.html>, accessed 8.1.2016

WEIG013 - Weigela florida GOLDEN JACKPOT® 'MonRigney' - 4-6 ft. tall x wide. Leaves rich golden yellow, holding gold tones all summer, not fading in summer heat. Flower buds open rich near red, finally dark pink, lasting nearly 30 days. Web: <http://www.monrovia.com/plant-catalog/plants/5254/golden-jackpot-weigela/>, accessed 8.1.2016, as "perhaps the brightest weigela yet".

WEIG014 - Weigela florida CZECHMARK™ TRILOGY 'VUKOZGermini' - 3.0-3.5 ft. tall x 3.5-5.5 ft. wide. Flowers white becoming pink, finally near red, tricolor or quadricolored look at peak bloom time, "crisp pure color". Eval: said to be superior to older clone 'Carnival'. In, ph: <http://springmeadownursery.com/plant/97670>, accessed 10.16/2016

WEIG015 - Weigela florida CZECHMARK™ SUNNY SIDE UP 'VUKOZ041323' - 3.0-3.5 ft. tall x 3.5-5.5 ft. wide. Flowers white with large, distinct golden throat that extended well through the inner corolla and is very visible.

WEIG016 - Weigela florida CZECHMARK™ TWOPINK 'VUKOZ90345' - 3.0-3.5 ft. tall x 3.5-5.5 ft. wide. Flower medium pink, others dark pink, those paler ones with a large dark pink throat, flowiferous.

WEIG017 - Weigela florida DATE NIGHT™ STROBE™ (also as 'Strobelight' in gpnmag.com, issued June 14, 2016) - Flower color medium, bright pink, calyx end and tube much richer violet-pink, stamens whitish, contrasting. Leaves bronzyish-green at first, more bronzyish-orange and medium orange in new tips, later more green, crimson red in fall. Web: <https://www.plantsmap.com/organizations/24835/plants/35475/date-night-strobelight-weigela>, accessed 3.12.2017

WEIG018 - Weigela middendoriana HILLIER™ 'Mango' - Flower corolla light yellow, reddish-orange in throat, this pattern often 3-forked or trident-like, stamens cream, blooming up to 8 weeks. USDA 5. Or: Hillier Nurseries, UK. web, in: <http://planthaven.com/plant/weigela-hillier-mango/>, accessed 3.13.2017, introduced Spring 2017 to US trade. Ns: the HILLIER™ trademark is not registered with OROC as it serves as a marketing name applied to multiple, unrelated genera and is not equivalent to a horticultural taxon.

PENDING - Weigela PINK FLICKER™ - a listed name with Ball Ornamentals, full data pending.

WIST001 - Wisteria macrostachya SUMMER CASCADE™ 'Betty Matthews' - 15-25 ft. tall, cascading mound, densely covered in flowers. Flower corolla deep lavender-blue with some paler portions. Proven cold hardy at the Minnesota Landscape Arboretum, USDA 4 or better. Firsteditionsplants.com, accessed 4.14.2015, introduced c. 2012, first retail sales 2013

WIST002 - Wisteria floribunda 'Ed's Blue Dragon' - vigorous vine as species. Flower inflorescence 35-40cm long x 8-12cm wide, about 1-10 per stem, lasting 3-4 weeks, individual flowers 2cm deep by 2.0-3.5 wide, corolla light blue and mauve tones (RHS 160D tinged 104B and 92B, later 106D fading in part to 108D), double in about 20 petals, these 2-3cm long by 0.5-1.0cm wide. Easily propagated by stem cuttings, not needing grafting. Flowers are much paler than parent 'Black Dragon' with dark purplish-mauve colorations and also doubleness or multiplication of tepals. 'Domino' has a similar coloration but its flowers are single and rosette-shaped. Or, pat: US# 26415 on Feb. 16, 2016 to Ed Carmen as cross of 'Black Dragon' and various pollen parents. Selected as a single plant in 1996.

Hatch's Cultivars of Woody Plants is our standard reference for 27 previously published Zelkova cultivars.

ZELK001 - Zelkova serrata GOLD FALLS™ (Monrovia)

UNREGISTERED - REJECTED - Zelkova serrata 'Luminifera' (Esveld Nursery) - post-1959 Latin name, thus illegitimate and invalid. A correction to 'Luminiferous' is suggested but we cannot yet identify the originator.

ZELK002 - Zelkova serrata DAVID'S WEEPABOUT® 'JSC Kingstree'

ha: semi-pendulous, suggestive more of 'Green Veil' than a true, full blown weeper but distinct from

ha: that clone in foliage.

lt: slightly twisted

ll, lm: more incised, very elongated, apex nearly filiform or thread-like

or: James Cavet, JSC Nursery

so: www.heritageseedlings.com, accessed 2014

ZELK003 - Zelkova serrata 'Green Mansions'

lc: margins white-flecked, an irregularly spotted margins (ie. margino-maculata style) as in

lc: 'Goshiki' but possibly a larger chimera than it. We have yet to compare both so it might be a rename.

in: www.heritageseedlings.com, accessed 2014

ZELK004 - Zelkova serrata MYRIMAR® 'ASFKF'

ht: 50-60 ft. tall x 40-45 ft. wide

ha: broadlypyramidal and arching as species

lc: darker green

lt: thick, leathery, durable

or: parent tree from Pritchard's Nursery, Madison, Georgia, handling the heat and drought of the 80's and 90's there

prop: does not require grafting, this faster, more efficient product

eval: said to be superior to previous standards of 'Village Green' and 'Green Vase'

in, ph: <http://www.moonstreefarm.com/image-viewer-intro.htm?Intro/Fintro1-8.jpg>, accessed 10.21.2016

ZELK005 - Zelkova schneideriana 'Hen Tian Gao' - slow growth rate, low branch point, more numerous branches, fall color late, dropping later too. Lu: landscape greening, "especially in roof greening". Or: breed from seedling mutant, Central South University of Forestry and Technology, China, intro. 2016



OROC Declaration

While the International Society for Horticultural Science (ISHS) Commission for Nomenclature and Cultivar Registration via the role of the International Cultivar Registration Authority (ICRA) over the last fifty years has succeeded in some valuable measure to stabilize the vast nomenclature of garden plants, and in some genera serve the scientific and gardening communities with brilliance and deep scholarship, in many ways they have failed to lead, proactively seek knowledge, communicate, and innovate for the majority of economically important and culturally precious landscape taxa. Fewer than 1% of new woody plants, 2% of hardy herbaceous perennials, and 0% of annual bedding plants (given that no registrars exist) are catalogued each year. Nor do the vast majority of nurserymen, including worldclass breeders in a genus for decades, know with whom in ICRA to communicate nor do most see any merit or value in their process.

When most of these incomplete registrations in hundreds of under-served genera appear, sometimes after years of delay since submission, one must purchase thousands of dollars worth of society, academic, and other periodicals to be fully informed, thus the scheme becoming an elitist communication paradigm that excludes all but the most wealthy institutions and financially able collectors; or those who just happen to live near libraries with few budget restrictions. A simple question to an ICRA may cost one upwards of \$200 to acquire their data, leaving amateurs and students bewildered and unaided. We know. We were those students asked to pay up.

Furthermore the existing system is designed not to serve the public or even a devoted set of collectors but the perpetuation of chosen societies, institutions, favored nurseries, author-ICRA, nurserymen-ICRA, and gardens through sequestration of knowledge for sheer profit and control that goes far beyond the rules of the nomenclatural codes. In this internet era where publication costs literally nothing, the *status quo* with cultivar registration remains even more puzzling and intolerable. Garden plants and the people who cherish them are supremely worthy of a far more accessible and modern system, requiring both reform of the ICRA and revolutionary new alternate channels.

We as the OROC, a consortium of horticultural scholars, taxonomists, breeders, plantsmen and plantswomen, geneticists, professors, landscape designers, curators, garden administrators, librarians, landscape architects, floriculturists, nurserymen, students, the odd botanist (aren't they all?), plant explorer, web guru, Master Gardeners, and

accomplished amateurs strongly disagree with the money-first, elitist control of cultivar knowledge in what can be, and we believe should be a free, fair, and very open system. In this mind we will give more, do more, and share more towards the improvement of students, scholars, plantmen, the general public, and all our gardens everywhere. If you have an internet connection, you will pay nothing to be informed.

You have our promise that free, effective, highly informed, proactive, and scientifically rich communication will be given, constantly improved, refined, and augmented at all times.

OROC Principles and Remedies

Principle 1. 100% New registration access. All new registration data is shared online 100% free with no preferences for any persons, parties, corporations, or organizations in terms of access, timing, or data delivery. No society dues, purchases of any product or service, journal subscription fees, or other paid fees or compensation will be required for access to this new cultivar data.

Principle 1.A. We affirm that the purpose of cultivar registration should never be financial support of a plant society, botanical garden, arboretum, organization, publisher, their staff, or other entity, nor is it acceptable to monetize and control data access for personal, professional, and organizational reasons. Cultivar registration must favor open, status-neutral, communication of plant information regardless of ability or willingness to pay, join an organization, or subscribe to specific media.

Principle 1.B. Non-interference with traditional monographs and databases. The primary goal of the OROC program is cataloging and communication new cultivar introductions, allowing authors, database developers, curators, germplasm managers, and other compiling parties to write more complete checklists and encyclopedia as their own work product, integrating OROC data as they choose. When it becomes logical, economically viable, and a strong scientific need, OROC will endeavor to create and share complete checklists as 100% free publications, mindful to avoid direct competition with authors, whenever possible or feasible, on whom we depend for free and willing exchange of data.

Principle 2. No fee policy. No fees or other compensation are charged for the registrations, processing or communication of data, or any changes to same. Lack of membership, legal standing, inclusion, nor any other fees or conditions will exclude a person from registering a cultivar.

Principle 3. Expert Assistance. Scientific support including experts in taxonomy, genetics, and the specific genus, all when possible, are provided readily, at no cost, and without delay. An unpaid, uncompensated, all volunteer panel of experts will be assembled when possible to assist in all these matters.

Principle 4. Immediate Data Delivery. Registration data will be provided online in a timely manner within 24 hours as a goal, and sooner if possible.

Principle 5. ICNCP. The International Code of Nomenclature for Cultivated Plants (ICNCP) is our guide for cultivar name acceptance and evaluation when possible, our Board of Directors allowing exceptions to be clearly stated and explained.

Principle 6. Commercial Links. Commercial links for promotion, mailorder sales, sales contacts, and other communications will be encouraged and communicated as an incentive for registration and general cooperation. This has been widely discussed as a failure to motivate registration with the current ICRA system. Nurserymen and plant breeders need exposure, deserve it in fact, and providing them a printed address reference in some barely read journal is not what they need, want, or desire. Also important is the easy, mailorder or local availability of new cultivars to the buying public. There is nothing more frustrating than seeing an exciting, breakthrough cultivar registration and finding no listing anywhere to acquire it.

Principle 7. No Delay Policy. Registrations are not delayed for any commercial reason such as publication of book or product by a participant except by legal demand by an attorney on record requiring such an order. The delay of publication of data for the purpose of book publication by an Author-ICRA, patron of some institution, or a noted horticultural society is considered abuse of the system and will not be tolerated.

Principle 8. Patent and PBR Monitoring. Application for a Plant Patent or Breeders Rights is considered a content capture event worthy of automatic registration and recognition. Staff in this project are to monitor all Patent and PBR sites on a regular basis.

Principle 9. Proactive Data Seeking. We will seek out new cultivars by any ethical and legal means possible and consider all publications of cultivars in catalogs, books, monographs, checklists, websites, or other media to be worthy of our automatic registration without or without the consent of the originator, nominant, introducer, patent holder, patent assignee, or other party. Our registrations will be both proactive and reactive, the first from our own study and the second from submissions sent to us.

Principle 10. Communication paradigm. Data will be distributed by the most innovative, technologically efficient, and effective means of communication possible. OROC will invest time, money, and resources to study, test, and acquire new technologies, tools, hardware and software, and all other means or methods for efficient transfer of our free data to the most users possible.

Principle 11. Volunteer and Student Mandate. Volunteers will be the basis of our data development and communication program. When possible we will have at least 20% of

our staff as student interns to keep use fresh, modern, and technologically informed.

Principle 11.A. CCR Program. Commissioned Cultivar Registrars (CCR) will be trained and appointed from the ranks of known experts and eager students to provide modern, high level service at no cost and yet service of great value to our Registrants.

Principle 12. In the early stages, [Http://www.cultivar.org](http://www.cultivar.org) is the default free website for registration data but is given no preference over other websites or media in any aspect or function. In future we will list all other sites with a full availability of OROC data and regular updates of such. The process for use and extraction of registrations from the cultivar.org pages will discussed below.

Principle 13. Elimination of Registration Obstacles. We will not impose severe and undesirable requirements upon registrants such as demand for surrounding copyrights to images, submission of nursery stock, herbarium vouchers, or plant tissues for documentation or evaluation, and need for extensive, multi-year cultivar trials. Such is the prerogative of patent and breeder's rights organizations and by no means under any code the right of a cultivar registrar.

Principle 13.A. OROC will promote and assist with maximum documentation of a new cultivar but are mindful that our duty is registration and at no time are we to comment on the merits of a new cultivar except in a clearly editorial context with a named author. It is the work of plant trials committees, Plant Plant, and Plant Breeders Rights authorities to evaluate the unique merits of a new plant.

Principle 14. A Board of Directors will supervise all activities and have power with a simple majority to rule on any issue.

Principle 15. Excluded genera policy. Our Board of Directors will determine a list of genera well served via ICRA with high scholarship, communication, data access, and other criteria which will be excluded from the OROC process. Exclusions will be posted on our registration forms and related portals. The OROC program will not accept registrations in certain genera due to their size, complexity, specialized interest, and existing success in the ICRA and other programs. Subject to amendment by the Board of Directors our current list of excluded genera are: all Bromeliaceae, Camellia, Dahlia, Dianthus, Fuchsia, Gladiolus, Hemerocallis, Hibiscus rosa-sinensis (and tender hybrids), Hosta, Iris, Liliium, all orchids, Paeonia, Rhododendron, Rosa, Saintpaulia and all other Gesneriaceae, Syringa, and Tulipa.

Principle 16. We will endeavor with care and to cooperate with ICRA, plant society, and other expert organizations in genera to exchange data whenever of mutual interest.

Principle 17. Proven effective registration tools such as those used at Coleussociety.com and ICRA will serve as models for other genera and plant groups in our scope.

Principle 18. Data will be made available in multiple formats and for multiple computer and media platforms so far as cost permits.

Principle 19. CCR Resources. Refusal of later homonyms and synonyms in registration will be based on all available literature from any reputable source. Staff have free access to Cultivars of Woody Plants, Hatch's Perennials, HITS, and other cultivar.org references at no cost to determine previous or confusing use of names that the ICNCP forbids. We further recommend use of the RHS Horticultural Database (not the new, Plant Finder), Internationalplantsnames.com, and plantscope.nl in this process.

Principle 20. Trademark Name Policy

Principle 20.A. Sensible cultivar name policy. We will seek the registration of sensible, easily read, and communicated cultivar names in natural, vernacular language at all times, discouraging the use of trademarked names as the sole, preferred, logical, or *de facto* name of any garden taxon. OROC Certified Registrars will be asked to coach registrants towards this end, giving them options and suggestions at every step of the process, and doing so within our 24 hours response time window.

- 20.A. 1. A **Trademarked Entity (TE)** is an alleged plant marketing group, taxon, clone, strain, or other unit of naming or designation formed by a species or genus name followed directly by a trademarked name, registered or unregistered, and associated for commercial purposes with it by the originator, nominant, or introducer. For example, *Plantus communis* MORNING SUN® and MAGIC GARDEN™ are both initially considered a Trademarked Entity or TE until it is evaluated by OROC under Principle 20.C.1 for potential establishment of a Taxonomic Equivalency or Association (TEA). Further, the TE once considered for TEA status is further assigned a type of TEA status such as being as defined under Principle C.1.5.1. For example, *Plantus communis* MORNING SUN® is only associated with a single named cultivar 'Golden Ray' and is assigned Cultivar Equivalent (CE) status. *Plantus communis* MAGIC GARDEN™ has more than one clone but also includes cultivars in several unrelated families, namely in the hypothetical species *Florus albus* MAGIC GARDEN™ 'Snowball', *Liana maxima* MAGIC GARDEN™ 'Delicate Charm', and *Arborea erecta* var. *americana* MAGIC GARDEN™ 'Emerald Pillar'. MAGIC GARDEN™ will not be registered by OROC and considered a Multi-Generic Marketing Brand (MGMB) under Principle 20.C.1.1.
- 20.A.1.A. A cultivar and other taxa of botanical nature are defined by the two major nomenclatural codes and the definitions contained there are adopted here.

Principle 20.B. Cultivar-less garden varieties: trademarked entities without a designated cultivar name. While cultivar-less garden taxa are discouraged, we believe as citizens of a free and open world in the right of commercial parties towards using unregistered trademark names as the sole name for a named commercial clone without use of any cultivar name if they so desire for personal or business reasons. However, this practice will be discouraged if communication is sought with the OROC program.

Principle 20.C. Rejection and modification of some trademark names for logical, practical, and fair reasons. While OROC cannot determine the merits, validity, or legal status of any trademark, we have chosen to reject some trademark applications for purposes our registration documents.. Reasons for rejection include:

- 20.C.1. **Failure to establish Taxonomic Equivalency or Association (TEA) within a single species or single genus** where the trademarked entity has no taxonomic or genetic analog, homologue, direct pairing, or association such as with a cultivar itself, Cultivar Group, botanical form, botanical variety, subspecies, another infraspecific taxon, Grex, Provenance, Gene Group, Hybrid Group, Diversity Group, Genomic Group, Gene Sequence, or Strain. A trademark entity accepted by OROC should have a one-to-one exact synonymy (even as a clone) with a named taxon such as a cultivar or belong as variable entity to one of the above types of taxonomic or genetic groups as member. It must be identical to a unit of classification or clearly a part of it as known variation. It may be clonally or genetical identical or just be a related member of the group as defined by taxonomists and geneticists, fitting within the defined classification or set of traits. Association can be defined broadly as membership or kinship, phenotypical or genotypic in nature.
 - 20.C. 1.1. **A trademarked entity which spans more than one genus is not accepted and will be considered for our OROC purposes a Multi-Generic Marketing Brand (MGMB)** or MGMB name and not a Taxonomic Equivalent or Association (TEA), whether or not it is legally registered for a specific genus or not. Many of these names are registered with authorities for more than one genus even though initially applied to just one. OROC will judge their merits based on actual trade application to one or more genera. The trademark name can be rejected based on the registered trademark's application showing intent to apply it to more than one genus, rule 20.C.1.2 as one exception.
 - 20.C.1.2. **Exceptions granted for split, closely allied genera or intergenetic crosses.** Where a genus has been split from another and historically closed related to it (perhaps former Subgenera or Sections), the trademark name may be allowed to span these closely related genera, whether than trademark was established before widespread acceptance of the split or not. In the case of hybrids among closely related genera, exceptions may be granted on an individual basis. For example, OROC would now accept a trademarked entity which spans various new taxa within the complex called Cupressus, Chamaecyparis, Xanthocyparis, x Cupressocyparis, x Cuprocyparis, Callitropsis, and allowing them to cover whatever species names are now preferred.
 - 20.C.1.3. **Botanical taxa with selected wild-to-garden horticultural clones accepted as equivalencies.** The above statement 20.C.1 does not imply we recommend botanical taxa such as formae, varieties, or subspecies be distributed or cloned (without unique traits stated) and considered for trademark names in the future. We do understand that collectors, nurserymen, and academic experts alike select heavily from wild populations and select superior clones of these taxa. Let us consider the hypothetical species *Plantus roseus* which normally has pink corollas but with f. *albus* has white to cream ones. Nurseryman John Doe has studied extensively of that white-flowered form around the country, searching out noble wild clones, and selected two of them he calls KENTUCKY CREAM™ and EARLY SNOWFALL™ without any defined cultivar names at this point in time. They are not equivalents of any true cultivar group (there is no valid 'Albus' nor Albus Group) since the white-petaled variants are technical f. *albus*, a wild even if rare entity. OROC would accept these in the form of *Plantus roseus* f. *albus* KENTUCKY WHITE™ as they can be established from a known, perhaps single gene mutation that appears here and there over time in the wild. The originator of the trademark names bears all responsibility to document in specific detail with numbers how his trademarked clones differs from the typical form. See below for the BVA and BFA terminology.
 - 20.C.1.4. **Geneticist's classifications accepted as Taxonomic Equivalencies or Associations (TEA) for trademark registration purposes.** These may be termed genome clusters, hybrid groups, or even Diversity Groups. For example, if *Plantus albus* and *Plantus chinensis* have often been crossed these elite hybrids crossed yet again to new species *Plantus springeri*, these might have already been known in breeding circles as the AC Group (*albus* x *chinensis*) and now the ACS ((*albus* x *chinensis*)x(*springeri*)) Group. The term Diversity Group is used for subsections of a genome. They are in fact very much like cultivar groups but sometimes have more of a genomic basis than classic taxonomic one. Geneticists often defined species and hybrids groups very differently than even the modern taxonomist. In our very complex times with genes moving everywhere, geneticists are often defining their taxa in very different terms and these are increasing important for landscape and ornamental horticulture around the globe.
 - 20.C.1.5. **Trademarks and their Taxonomic Equivalents and Associations (TEA) may be further classified** for speed of registration and communication:
 - 20.C.1.5.1. **Trademarked entity is always just one taxon, in an exact, one to one relationship.**
 - **Cultivar Equivalent (CE)** - this is a one-to-one direct connection between the trademarked name in all cases and one specific cultivar. This means the trademarked name has only one application and that to one specific cultivar or clone. There will be no other variations except when a different trademarked name is presented. The cultivar may be a seed strain and thus more variable than monoclonal material. For example, SUMMER GLORY® is always the same as cultivar 'Sumglo' and there are no other clones of it under different cultivar names. The one-to-one link is precise, exact, and defined.
 - **Lack of a cultivar name.** A trademarked entity may be considered a CE without an actual, known, or published cultivar name. For example, if the originator said he grafted this clone from one sport in his nursery, we consider this to be a monoclonal, cultivar-like or CE situation.
 - **Clarification of propagation method.** When possible OROC Certified Registrars will determine if the trademarked entity is propagated by seedage, cuttage, graftage (Liberty Hyde Bailey's terms) or by tissue culture. Further, if the trademarked entity/cultivar is vegetatively propagated we will ask if it is **monoclonal** (one specific original plant) or **polyclonal** such as a group or similar seedlings or from stock plants which came are variable to hold generally true to the description.
 - **If an originator subsequently introduces additional clones or taxonomic entities in the CE** for what was once a direct, one-to-one association, the position of CGA (Cultivar Group Associate) will be assigned to the trademark name and the originator asked to create very distinct nomenclature to separate the various new taxa.
 - 20.C.1.5.2. **Trademark is part of a larger, variable group, and not one precise taxon, not one-to-one:**
 - **Cultivar Group Associate (CGA)** - the trademarked name applies to more than one defined cultivar or clone such as RED, WHITE, and PINK clones

within the trademarked name. There does not have to exist a Cultivar Group in existing literature or registers for the CGE to apply. For example, SUMMER GLORY® is presented by two clones called 'Sunglo1' and 'Sunglo2' also known as SUMMER GLORY® ORANGE and SUMMER GLORY® SCARLET, respectively. The trademark name groups the two cultivars and perhaps future ones in the same manner as a traditional Cultivar Group. SUMMER GLORY® may belong to an existing Cultivar Group called Rubrus Group for red to orange-flowered variants or it may not have such an existing association. It stands on its own if necessary.

- **If an originator of a trademarked name cannot determine the species affinity of a stock** OROC will assume the new entity is a CE or CGA within the genus only based on the number of distinct entities or taxa claimed or planned for introduction. OROC will provide all means of taxonomic assistance including study of living, pressed, or image material using all resources available to assist the registrant in a taxonomic profile of their taxon or taxa.
 - **If the originator cannot determine the genus of the trademarked entity** it will be rejected until that issue is resolved. Assistance will be provided by OROC at our expense in most cases.
- **Trademarked entities which span several known cultivars groups, botanical formae, or most other infraspecific taxa within the genus** are accepted as a *de facto* **New Cultivar Group Associate (NCGA)**. A good example is a number of cultivars and trademarks of *Campsis radicans* which span f. *flava* (yellow, gold, and orange corolla) and the more typical red to scarlet f. *radicans*. They cannot be said as a trademarked entity to have one BFA or Botanical Forma Associate role. Then they are placed in the role of a Cultivar Group Associate (CGA) or now NCGA on the basis of their origin and shared traits (other than corolla color), forming what is essentially a new cultivar group. Modern cultivars and their trademarked entities span a wide range of genetics within a genus such as dwarfness, corolla color, leaf shape, and perhaps the traits of a specific famous cultivar. One has no need to look further than *Fagus sylvatica* to find weeping purple (f. *pendula* and f. *atropurpurea*), columnar gold (f. *zlatia* and f. *fastigiata*), and weeping purple oak-leaved (f. *pendula*, f. *heterophylla*, and f. *atropurpurea*) clones in the mix which draw from various interspecific groups and their curious genetics.
- **Hybrid Group Associate (HGA)** - these may be defined in various ways by geneticists for OROC purposes we have selected to define this one term. The HGA applies to a specific set of species within a genus crossed with a specific parentage or pedigree whether or not a botanical hybrid species exists or not. There may be two, three, or more species in this known hybrid group. For example, *Plantus communis* x *Plantus vulgaris* may be known botanically as *Plantus x intermedius* and trademark of cross would be known as the HGA of P x *intermedius*. A breeder comes along and makes spectacular results by crossing *Plantus x intermedius* x *Plantus sinensis* from Asia and calls this the (CSV Hybrid Group) for the three specific epithets of the contributing species, set down in alphabetical order. Her SKY MASTER® series of hybrids including SKY MASTER® CROWN and SKY MASTER® RADIANCE have an HGA with the (CSV Hybrid Group).
 - **Formation of HGA names** has long been a subject of our work within the Cultivars of Woody Plants encyclopedia system. Lacking their definition in literature and establishment there, Cultivars of Woody Plants has established a **system of alphabetical order by specific epithet when grouping interspecific hybrids**. For example, a cross of *Plantus vulgaris* and *Plantus albus* would be called the (AB Hybrid Group) and not (VA Hybrid Group) because *albus* comes before *vulgaris* in alphabetical order. Because male and female parentage is likely to shift from one species to another, there is no harm in this system and it offers many advantages. The *albus* groups of hybrids appear together and in order such as crosses to *Plantus bicolor*, *P. chinensis*, *P. communis*, *P. incisa*, *P. roseus*, and *P. vulgaris*. If *Plantus* (AB Hybrid Group) x *P. chinensis* occurs with more than one named clone, a logical (ABC Hybrid Group) name will be used to group both cultivars and trademarked entities in future. If *Plantus albus* x *Plantus vulgaris* were already well established in the literature under the hybrid species name *Plantus x smithii*, the cultivar and trademarked entities would be grouped under that name instead.
- **Botanical Forma Associate (BFA)** - a clear member of a botanical form or f. In modern terms, botanical formae are frequently single gene mutations or groups of mutation which alter just one trait such as corolla color, leaf shape, leaf color, fruit color, or leaf shape.
- **Botanical Variety Associate (BVA)** - two good examples would be *Cornus kousa* var. *chinensis* and *Viburnum plicatum* var. *tomentosum*.
- **Genetic Group Associate (GCA)** - a clear member of an established genetic group as a Diversity Group, genomic unit of any name or kind, mutation name (ie. AAaa=double white flowers), Hybrid Group, genomic cluster, or other terms favored by plant breeders in the interspecific and infraspecific classification of variation.

- **20.C.2. The Cultivar Non-Connection Rule (CNCR) : the trademark holder or creator has appended their trademark to an existing, established cultivar** with which they have no connection as originator, introducer, nominant, licensee, legal representative, exclusive distributor (as cultivar), or legal representative of same such as the estate of the originator. In such cases taxonomic equivalency is usually established and clear. Cases of appending trademark names to a cultivar established by other parties over 50 and even 100 years ago are known. For example, *Cotoneaster horizontalis* 'Variegatus' is marketed as NORTHERN BORDERS™ even though this taxon was established in the late 1800's by completely different parties **and** there is no claimed clonal difference. For our OROC purposes, the originator will be asked to create an entirely new cultivar name without documented differences between it and the established cultivars if any differences are claimed before the trademark equivalency can be evaluated. Lacking such a rule, we believe it is open season on all existing cultivar names to be given marketing names that falsely suggest they are new, improved, or otherwise special novelty creations. Registrants will be given opportunity to establish permission from the originator of the old cultivar, including their estates in law and relatives.

- **20.C.2.1. Rejection of trademarks applied to other, long-established taxa other than cultivars.** OROC will reject trademark names unless registered by an official government unit if they are long established in literature, trade catalogs, or other respected, well-distributed publications and determined to be document

creations as new by a specific originator. Recently we saw *Pinus sylvestris* FRENCH BLUE™ as a trademark when the French Blue Strain is very old, respected provenance with some morphological and physiological distinctions. The party who used this trademark had no basis for claiming the strain as their own or doing any unique clones from it (which would require new, distinct names) so we could not accept that name as such.

- 20.C.2.2. **Cultivar groups and certain other ranks established in literature are not convertible to trademark names** in their exact form if validly or popularly established in literature and well-known documents for a genus. A distinct clone with a trademarked name may be named under a cultivar group such as *Plantus viridis* (Pendula Group) 'Yosemite Falls' but not as *Plantus viridis* PENDULA™ YOSEMITE FALLS if the 'Pendula' or Pendula Group was already known and accepted. Legally, the nominant or namer of trademark name has no restrictions based on the historical record of cultivar or cultivar group names but in OROC we respect this long history and wish to remove potential confusions, distractions, and nomenclatural disrespect before it occurs. We respect equivalencies and derivations there from but not reappropriation of names to the commercial side which will lead to problems of many kinds in commerce and science.
- 20.C.3. **Trademark-to-cultivar and cultivar-to-trademark conversions: prior legal establishment of the same exact name in a legal or official government document as a cultivar** will exclude the trademark from status and registration. For example, if an originator patents a cultivar called 'Golden Queen' in the US Plant Patent system and it is accepted and they thereafter market it as GOLDEN QUEEN™ 'Jonesgold', the cultivar to trademark conversion will be rejected. 'Jonesgold' becomes a later homonym under ICNCP rules. The originator would be free to use GOLD QUEEN™ 'Golden Queen' pair as they are not the exact same phrase. OROC recommends cultivar names not be too close to the trademark to prevent confusion.
 - 20.C.3.1. **Use of cultivar name as a trademark in non-legal, official media not approved by the originator or legal representative of the taxon** such as published by a nurseryman, author, or distributor does not in any remove legitimacy of the names as the originator and legal representatives intended or intends to designate them in the future. Legal publication is defined as the trademark, patent, plant breeders rights, or similar governmental agency document (including state universities and agricultural stations producing cultivar releases) which publishes official journals, databases, or registers. Valid publication by authors or cultivar registers is not a basis of legal establishment of a trademark status as such have no jurisdiction over that naming convention. OROC's authority similarly stems only from our acceptance or rejection of a trademark for purposes of assigning a registration number and inclusion in our publications. For example, *Juniperus horizontalis* LIMEGLOW™ 'Noslg' was published for a very popular chartreuse, lime, and winter purple and bronze sport of 'Youngstown' in Garden Junipers by originator Larry Hatch. It was first published by Humphrey Welch in The Conifer Manual as cultivar 'Limeglow' based on correspondence that I had with him but not with my permission as a cultivar designation. He went print when in those days conifer cultivars were generally outside the trademark realm, making his cultivar ranks assumption logical but not cleared with the me. The first official distribution of this clone assisted by Dr. J.C. Raulston was through the Iseli Nursery or Boring, Oregon and it is still sold by them under the correct name of LIMEGLOW™ while many growers outside that network continue to use the incorrect cultivar designation, especially in Europe. Some nurseryman and authors "jump the gun" and publish names without full knowledge of the originator's desired or final intent.
 - 20.C.3.2. **Once a cultivar always a cultivar - Once a trademark always a trademark** is the universal principle of OROC trademark acceptance. Conversion from one realm to the other requires a complex discussion of history in a manner that is logical, legal, and fair. We have a process so please email if you wish to go through the maze, a fair, logical maze at that.
- 20.C.4. **ICNCP naming rules are not applied to trademark names** and cannot be the basis for the rejection of a trademark name as the International Society for Horticultural Science has no jurisdiction or legal standing in the naming of trademarks.
 - 20.C.4.1 **Protected, inadvisable trademark names.** OROC Certified Registrars are asked whenever possible to alert registrants to possible issues concerning their plant name, especially if it might violate trademark laws known to us and use the name and terms protected worldwide. Please consult an attorney on record if you have any questions as to the legality or wise use of any name based on popular companies, products, or services. Please see your local trademark authority's website for guidelines on the range of products to which you name might be applied and in which countries. A plant using the trademarked name identical or similar to a popular soda, cartoon character, music star, food stuff, automobile, store, or vendor will likely have trouble if that original trademark is broadly based, covering many categories of product and service. Since an unregistered trademark holder does not go through the registration process, they may not be aware of the extensive coverage of an existing trademark and that it may well apply to their plant, inviting expensive and time-consuming litigation.
- 20.C.5. **Promotion of a resurgence of Latin named garden plants.** Latin is a beautiful language and especially botanical Latin. Many plant originators, young and old alike, mourn the day when Latin was banned in cultivar names; that being January 1, 1959. Trademark names have no such restrictions and the name game is wide open now. This new found freedom allows an originator to name a plant in Latin as one example such as HATCHII GLAUCA NANA™ 'Hatch's Blue Dwarf'. Maybe we could get more expressive and turn the ordinary 'Golden Queen' into it equivalency of ELEGANTISSIMA AUREA REGINA™. While OROC will continue to reject and hope to correct Latin cultivar names when submitted, we are offering the alternative of unregistered trademarks for those who wish a bit of ancient class to shine on their new plant creation. OROC is committed to given all plant originators a full range of freedom, options, and clarity when naming their fine new plants. Latin expression is just one way we go. As registration bodies like OROC published registered of trademarks, the reuse of Latinized names will be increasingly unlikely.
 - 20.C.5. **Requested and reasonal conversion of Latin cultivar name proposals to unregistered trademark status.** OROC has received to date two cultivar name registrations were partly Latin and the orginator was unwilling to vernacularize them. Frankly they sounded more interesting and elegant on the tonque. We encouraged them to designate these new monoclonal as unregistered trademarks and add a true, vernacular cultivar name as reasonable compromise. One declined and the other has agreed.
- 20.C.6. **The trademark name includes exact, established scientific, taxonomic names** such as the Latin or Greek name of a species or genus to which the cultivar belongs. SHINNING COLEUS™ is rejected but SHINNING™ COLEUS is not. Coleus is an established botanical genus name and cannot be trademarked in the plant kingdom. It could as a soft drink, laxative, or drug perhaps. Common names that relate to the same plant are accepted and in many ways trademark names conventiently

serve in the creation of popular vernacular names in the trade. *Olea europaea* 'HIDSHURTLEFF' is sold as WESTERN WEeping OLIVE™ which does not contain the genus name *Olea* and is thus accepted as ready common name and good unregistered trademark equivalency. Olive is a common name and nothing about trademark law we know prohibits this.

- 20.C.6.1. **Name Reduction Policy: OROC Advocates trademark names to equal common names or serve as the basis** of a new plant common name whenever possible and feasible. This is a very convenient process because when a plant has a trademarked name, cultivar name, and common name, we already add three names to an already complex cultivar count such as 1050 in *Juniperus* and more than 1200 in *Acer*. If we double and sometimes triple on those cultivar counts for these trademarks this is becoming a far too convoluted and entangled nomenclatural platform. If *Acer platanoides* SILVER SENTRY™ 'Billsilver' becomes known as the Silver Sentry maple or Silver Sentry Norway maple we now have a reduction of names. A number of nurseries already take the trademark name and fashion it to the common name in their online catalog database. This practice is encouraged by OROC.
- 20.C.7. **The Unregistered Trademark Usurpation Rule (UTUR): unconnected reappropriation of unregistered trademark names rejected as a trade courtesy.** OROC will politely reject an unregistered trademark name that is reused, reappropriated, falsely claimed, or otherwise usurped without the permission of the originating party of the established unregistered trademark name. We wish to establish a higher ethical standard and provide some added protection in the name of fairness, consumer awareness, and trade courtesy. For example, one nursery has established a series of dwarf *Buddleia* called SUMMER GARDEN CANDY™ with subclones in the same genus called WHITE, BLUE, and VIOLET. None are patented. Another, unconnected grower in another region created and now sells SUMMER GARDEN CANDY™ LAVENDER without permission of the first grower and originator of the name SUMMER GARDEN CANDY™; in essence stealing from his unprotected brand name and gained marketing reputation. Yes we know that the originator of SUMMER GARDEN CANDY™ has no general legal rights (see your own lawyers folks for exceptions as they are good at) to prevent anyone else from attaching to this name and using it at will. OROC will reject the name given without permission as a trade courtesy to avoid confusions and the generally undesirable, selfish behavior on the part of members of the ornamental plant community which is generally respectful, sharing, and kind.
 - 20.C.7.1. Applicants will be given the opportunity to present documentation that verifies their permission to use the name and we note any correspondance or legal documents on file with us.
 - 20.C.7.2. **Registered trademarks are legally protected from this kind of nomenclatural poaching** but an unregistered one is not.
- 20.C.8. **Simple language translations of the cultivar name** such as *Plantus albus* LA NIEVE™ 'Snow', the trademark phrase being a Spanish term for snow. It is very likely that 'Snow' will be sold in Spanish speaking countries as 'La Neive' anyhow.
- 20.C.9. **Rejection of simply adjectives as unregistered trademarked entities** much in the manner of ICNCP cultivar rule. OROC has seen some examples where names in form of MAJESTIC® RED™ or MAJESTIC® WHITE™ are being used as an odd combination of registered and unregistered protection. Since RED™ and WHITE™ cannot stand on their own as distinct nomenclatural entities, they are rejected, especially as they could well appear after other registered trademark names in other Cultivar Group equivalencies. OROC would in this hypothetical example accept distinct TM that follow registered names such as WHITE SATIN™ or RED SIGNAL™. The unregistered trademark name must not be a simple adjective, easily confused, or already used in the genus as trademark, cultivar, or common name.
 - 20.C.9.1. **Rejection of simple cultivar name adjectives appended to rejected trademarked names.** For example, MAJESTIC® is registered in the US and the subclones are sold as MAJESTIC® 'Red' and MAJESTIC® 'White'. The named 'Red' and 'White' have no standing as cultivar names any more than RED™ and WHITE™ as trademarks. The best use of this registered name would be MAJESTIC® RED not MAJESTIC® 'Red' nor MAJESTIC® RED™. The terminal epithet needs no protection because it means nothing without the leading, protected, registered or unregistered word. The leading registered trademark name must be respected and honored regardless of what terms or names follow it.
 - 20.C.9.2. **Special exceptions at the discretion of OROC Certified Registrars.** We received a name similar to *Plantus vulgaris* EMERALD™. Emerald is a common term for a range of green colors, gemstone, etc. and perhaps a simple adjective. Or is it? The name had no previous use anywhere in the genus so it was ruled to be acceptable.
 - 20.C.9.3. **OROC will request from the registrant or originator their intended status of Terminal Post-Trademark Epithets (TPTE)** after the trademark designation. For example. *Plantus roseus* JOYFUL SPRING® might be published in various catalog with one clone called JOYFUL SPRING® 'Rosebud', JOYFUL SPRING® ROSEBUD, and also JOYFUL SPRING® ROSEBUD™; the latter being the so-called double trademark. Any of these two designation for the terminal phrase is logical and likely legal. It is often unclear with new trademarked entities what status the originator intended as their labels, literature, and those of distributors may show two or all three of these variations. OROC will ask and if necessary explain the different options for the TPTE.
 - The trademarked name coming before the TPTE and directly after the species or genus name is known as the **Base Trademark (BT)**. If the TPTE is also a trademark also it is known as the **Terminal Trademark (TT)**.
- 20.C.10. **Rejection of trademark names accepted by governmental authorities in error.** Any trademark name granted by governmental authorities which already exists for a botanical or horticultural taxon of the same exact words in the same genus may be rejected on grounds of ignorance of the registering authorities who generally are not plant nomenclature experts not widely consult with same. OROC will attempt to consult the authorities when feasible but we reserve the right to reject any submitted names for reasons specified in detail.
- 20.C.11. **Any trademark name which is identical in letters, characters, or easily confused** due to 1-3 similar letters with any Latin family, genus, specific epithet, or botanical infraspecific taxon is rejected. This rule is intended to eliminate OROC registration and publication of trademark names based on species or genera and thus a *de facto* analog of it outside the botanical and horticultural naming codes.
- 20.C.12. **A rejected trademark name may still be noted** in ORCC Registers for purposes of historical documentation and promoting clarity but it will always be stated that the trademark name has no registration status and for what reason(s).
- 20.C.13. **OROC reserves the right to reject any trademark or cultivar registration based on deliberate fraud, misrepresentation of data, or falsification of facts.**

These include but are not limited to mis-statement of parentage, origin and history, exaggeration of traits, falsified statements on pest and disease testing, renaming an existing clone with no changes or modifications, or permissions in the use of private cultivar or trademarked names. For example, if a breeder stated they have permission of the estate of a well-known political or celebrity figure to use their name and OROC determines by investigation this is not true, the name will be rejected. If a newly named trademarked entity/cultivar is determined by thorough DNA analysis to be identical to an existing clone which may or may not already have legal protection, the name will be marked as REGISTRATION RESCINDED with a full statement of facts. This has happened in several genera where one grower seized upon superior material and calls it their own, mistating both the origins and their role in creating the new taxon.

- **OROC will demand proof of trademark status if registration is claimed** in some cases. We have found names using the American (R) or ® prior to acceptance at uspto.gov. This is unacceptable fraud and will not be tolerated. We are not a trademark policing organization and it is the responsibility of users of our documents including all OROC Books to do due diligence in their own checking of trademark databases around the world.

Principle 20.D. Valid publication and establishment of existing cultivar and trademark names. OROC Certified Registrars will use their judgement to determine if a cultivar name has been sufficiently established in literature, cultivar registers, trade catalogs, or other available documents when applying these rules relative to trademarks. They will seek advice of colleagues, specific genus experts we have on file, and all available information, publishing their decision guidelines and logic in the OROC Book Registers for the record. The database of all international authorities permitted to issue legal trademarks will also be consulted.

Principle 20.E. Lapse of a registered trademark name protection (LIVE to DEAD in uspto.gov terms) is a growing issue. Growers often listed cultivars with registered trademarks after the legal protection has lapsed one of several reasons that legal protection was removed by a governing body. These lapses are not generally reported in the nomenclatural and nursery communities.

- **20.E.1. Registered to Unregistered trademark demotion in OROC documents.** If a registered trademark is known to be **DEAD** (bold black letters, uppercase in the US Trademark Office database, uspto.gov) the ® symbol is to be removed and replaced by the ™ symbol, noting when possible the date and reasons for this change in legal status. The USPTO uses an Abandonment Date in their files. OROC cannot maintain immediate, live, real time updates on all plant trademarks so those concerned are advised to study governmental records and databases themselves should any questions arise. For example, Viburnum carlesii SPICE BALL® was registered with US authorities on June 10, 2013 by Spring Meadow Nursery, later show as DEAD with an abandonment date of June 24, 2014. It now is correctly listed by Spring Meadow, Proven Winners, and their distributors as SPICE BALL™ for this reason. Growers are free, pending any legal action to the contrary, to use the unregistered name with or without permission of the originator.
- **20.E.2. Possibility of registered trademark renewals after a lapse or DEAD status.** It is further possible that a lapse or DEAD registered trademark can be renewed, even after years of no protection, and reestablished in good standing or becoming LIVE. Consider this in your research, label printing, and other documentation.
- **20.E.3. Possibility of trademark lapse or DEAD status in one country but not all.** Covering the registered trademark status in all countries is a daunting challenge for the thousands of known trademarked plant taxa. If a trademark is stated as DEAD and ALIVE in the United States or another country, it still may have protection in other countries.

Principle 20.F. Standardization of superscripts, fonts, and registration status.

- **20.F.1. Registered trademarks** are noted like this example: Plantus communis REGMARK® 'Cultivar' or alternatively higher as Plantus communis REGMARK® 'Cultivar'. The higher superscript format can disrupt the word flow and spacing in some documents.
- **20.F.2. Unregistered trademarks** are noted like this example: Plantus communis REGMARK™ 'Cultivar' or alternatively higher as Plantus communis REGMARK™ 'Cultivar'. The higher superscript format can disrupt the word flow and spacing in some documents.
- **20.F.3. Trademarked names and their terminal names are to be in 100% uppercase** such as Plantus communis REGMARK® 'Cultivar' and not Plantus communis Regmark® 'Cultivar' nor Plantus communis 'Regmark'® .
 - **20.F.3.1** The ™ and ® cannot follow a cultivar name with or without single or double quotation marks. They have no meaning in the context of cultivar nomenclature.
- **20.F.4. Default unregistered TM status.** In some countries there are trade or PBR names in uppercase which precede a cultivar name such as WINTER GEM 'JoeseGem' but no particular superscript is shown by the originator or authorized licensed parties. In conformity with the US system of designations, OROC will assume the use of an unregistered TM unless the originator uses the PBR superfix instead. Unregistered trademarks require no communication with legal, governmental, and official agencies and are automatic merely by publication as such by the originator of any product including plants. The name would be changed to WINTER GEM™ 'JoeseGem' under this rule whether published in the US or not. As far as we can determine the PBR superscript has no legal standing in any country to protect a trademarked or registered name.

Principle 20.G. The double trademark is accepted by OROC (except where one name violates 20.C.1. as a Multigeneric Marketing Entity) if both trademarks can be determined to have taxonomic equivalencies. For example, if Plantus communis SPRING ROMANCE™ DIAMOND RING™ 'Caret' and SPRING ROMANCE™ WHITE WEDDING™ 'Veil' were the equivalent of a cultivar group (SPRING ROMANCE™) and its specific cultivar clone (either WHITE WEDDING™ or DIAMOND RING™), both trademarks names would be registered. This establishes both CGA and CE status under TEA guidelines. If SPRING ROMANCE™ appeared in more than one genus, it would be considered a Multi-Generic Marketing Entity and stated as such.

- **20.G.1. The double trademark has four possible variations:** (R)+(R), (R)+(TM), (TM)+(TM), and (TM)+(R) such as GARDEN GLORY® RADIANCE®, GARDEN GLORY® RADIANCE™, GARDEN GLORY™ RADIANCE™, and GARDEN GLORY™ RADIANCE®.
- **20.G.2.** The trademarked name used first is known as the **Base Trademark (BT)**. If the TPTE is a trademark also it is known as the **Terminal Trademark (TT)**.

Principle 20.H. Multiple trademark names for a single cultivar name are reluctantly accepted by OROC on the grounds that not all trademark names are legal, sensible, or suitable in every market and a single cultivar may in fact have to have more than one marketing name. For example, Weigela 'Slingo 1' is sold as CRIMSON KISSES™ by Monrovia in the US and as ALL SUMMER RED™ by the originator Vert Berhoef, the lines generally drawn between American and European growers. Likewise, Weigela 'Velda' is offered as TUXEDO™ and also EBONY AND IVORY™. While this practice is to be discouraged for its massive ramifications on making nomenclature more complex and confusing to the consumer, one must respect cultural differences and special situations in each region of the world.

Principle 20.I. Temporary unregistered status as a path to registration and full legal protection. OROC accepts and acknowledges that it is common practice to first sell a new trademarked entity under the unregistered TM while the legal, registration process is ongoing. This very much like a PPAF (Plant Patent Applied For) designation as a temporary bridge to discourage improper use of names and germplasm. Thus the conversion of a name from unregistered to registered is a normal, logical, and important process in the naming of plants and is not to be discouraged nor condemned. It is the obligation of all cultivar registers, authors, taxonomists, and others concerned with proper trademark annotation to keep abreast of the status of applied names for the sake of accuracy in their databases and publications. This is very much a concern for curators who must create or purchase very expensive, permanent metal labels when the ultimate trademark status is uncertain.

Principle 20.J. Nomenclatural role of subscript symbol location in determining rank or status. It is important that all registered trademarks have the (R) symbol appear after the actually registered name and not the unregistered name variants which flow from it. For example, if I were given registration rights to SPRING GLORY® I would perhaps have clones of it called SPRING GLORY® RED, SPRING GLORY® WHITE, and SPRING GLORY® PINK. These would not be legal as SPRING GLORY WHITE® unless that full, three word name were registered on its own with full documentation in the governmental database. Some large, successful growers do go to the added legal and process expense of registering many versions of the base trademark with all the color variations covered. The same does not apply to unregistered trademark names except where rule 20.C.8 applies.

Principle 20.K. Automatic transfer of trademark data when specific name or generic name is changed or corrected. Except by objection of the originator, all accepted trademark and cultivar information is transferred to the correct botanical name of the registered taxon in the event the originator uses an outdated, invalid, or otherwise incorrect name, OROC has accepted a new name for the base taxon, or genus changes for that specific species. This has occurred in the case of trademark cultivars of Myrica becoming members of the genus Morella.

Principle 20.L. Taxonomic Equivalency and Association (TEA) of a trademarked entity will not hinder application of existing cultivar groups or other interspecific ranks within the nomenclatural hierarchy. For example, a breeder creates two lines of hybrids within the species *Plantus communis* called PRAIRIE SNOW™ and PRAIRIE GEM™, respectively. *Plantus communis* f. *albus* PRAIRIE SNOW™ CRYSTAL is the full name of one named clone as it is referable to wild-occurring, white-flowered f. *albus* but by no means represents all the known variation of that botanical form, wild or cultivated. Similarly, *Plantus communis* (Nanus Group) PRAIRIE GEM™ JADE is the full name of another named clone, belonging to the cultivar group Nanus Group, covering all dwarf taxa with the dwarfness gene(s) of old cultivar 'Nanus' from which JADE was bred. The trademarked names here thus serve almost as a subforma (though of no botanical standing) under f. *albus* and as Subcultivar Group under the Nanus Group, forming an even more complex hierarchy of names. Let us take this hypothetical example further to show the integration of botanical, horticultural, and trademarked names, registered or not.

- *Plantus communis*
 - f. *albus* - the wild, white-flowered form known occasionally throughout North Carolina, Tennessee, and Kentucky, rarely appearing in seed blocks
 - 'Albus' - the common clone of gardens, selected by Smith Nursery 1883
 - 'Albus Superbus' - a larger-flowered selection of the original 'Albus' from Jones Nursery 1901, not widely seen
 - 'Albus Marginatus' - a sport of 'Albus' with a very thin, yellow margin to each leaf
 - 'White Magic' - a popular modern American clone from about 1954
 - PRAIRIE SNOW™ - a new series of white-flowered hybrids from Metropolis State University 1990
 - PRAIRIE SNOW™ CRYSTAL 'MSU01' - a compact, very clear white corolla, dark green leaves
 - PRAIRIE SNOW™ CRYSTAL IMPROVED 'MSU22' - as above but higher fungus resistant, corolla larger to 2.1 in. wide
 - PRAIRIE SNOW™ SNOWBANK 'MSU03' - a large growing form, slightly more creamy-white corolla than CRYSTAL
 - PRAIRIE SNOW™ FLAKE 'MSU17' - a medium-sized form, corolla nearly white, its lobes slightly incised suggesting a snowflake
 - 'Fancy Flake' - a white-margined sport of above, not eligible for use of the other parties' trademark name since unrelated in origin.
 - WEDDING DAY® - a new series of hybrids from Gotham City Nursery 1988
 - WEDDING DAY® BRIDE 'Gothbride' - compact, spreading, flowers pure white, larger to 2.2 in. wide
 - WEDDING DAY® GROOM 'Gothgroom' - tall, erect, flowers nearly white, 1.8 in. wide
 - f. *roseus*
 - 'Roseus' - a polyclonal mix dating to England and France about 1888, very variable in quality and color
 - 'Roseus Grandiflorus' - a selection with the corolla about 1.8-2.0 in. wide
 - 'Roseus Jonesii' - a pale blush corolla, Jones Nursery about 1908, true clone possibly lost
 - 'Pink Queen' - corolla a reliably rich pink color, sometimes washed out to white or blush in full sun
 - ROSE GARDEN® - the darkest pink corolla known, very magenta-red in bud, leaves blackish-green, corolla to 2.3 in. wide
 - f. *communis*
 - 'Green Magic' - a popular, compact hedge selection, larger than 'Nanus' and much more vigorous
 - 'Variegatus' - leaves irregularly margined white to cream
 - Nanus Group
 - 'Nanus' - 2-3 ft. tall, very dwarf, dense, named by Doe Nursery 1889
 - 'Pygmaeus' - 6-12 in. tall, very slow, tiny, used for bonsai, leaves very tiny at 0.5 in. wide by 1.0 long.
 - PRAIRIE GEM™ - a dwarf set of hybrids from 'Nanus' by Metropolis State University 1996
 - PRAIRIE GEM™ JADE - 1.5-2.0 ft. tall x wide, stays dense without trimming, rich bluish-green foliage

- PRAIRIE GEM™ EMERALD - 2.0-3.0 ft. tall x wide, about 'Nanus' size but leaves a richer, darker green tone
 - BOWLING BALL® - very dense, globose, smaller leaves, a cross of 'Nanus' x 'Pygmaeus' from Generic Nurseries 2011
 - Salicifolius Group - more, narrowly elliptic to widely linear blades
 - 'Salicifolius' - the original clone from Paris Nurseries, France about 1897, blades 1.2 in. wide x 6 in. long
 - 'Green Spear' - an improved selected clone, blades 1.0 in. wide x 4-6 in. long, a darker green, apex more acuminate, sharp
 - 'Silver Spear' - a white-margined leaf sport of 'Green Spear', origin unknown

Principle 22. Printed and Bound Registers. Fees may be charged to persons or libraries wishing to have printed, traditionally published, or bound copies of registrations but only as a means to recover costs and this with an absolute minimum of expense to the buyer and as nearly as possible to no profit nor loss to the project. We will work to minimize these demands and costs via our online website and ebooks that satisfy the needs of the academic, scientific, and all other traditional library communities.

Principle 22.A. Free ebooks with registrations will be studied with the desire to offer these via iTunes, Google Play Books, Amazon Kindle, and similar services that support a worldwide audience.

Principle 23. The Board of Directors may delete or modify any of these principles with an 80% or higher majority vote and add new principles with the same voting standard.

Principle 24. Objective, non-evaluation mission. OROC will have no function in determining the usefulness, commercial merits, overly resemblant taxonomy, or otherwise comment on the scientific merits of a new cultivar as has been a declared abuse of ICRA in refusing registrations well outside their defined role. The declaration of these merits is the role of Plant Patent, PBR, and cultivar trial administrators and not the role of any Registrar.

Principle 24.A. Respect for the necessity of commercial resemblant cultivars. OROC understands the commercial needs, rights, and needs of nurseries and marketing firms in this highly competitive age with so many nurseries and garden failing and falling, that highly resemblant cultivars are logical and frankly required. Everyone needs their own dwarf purple Loropetalum, a compact gold-leaved Physocarpus, the super narrow, wintergreen and denser than coral Thuja cultivar, and that glowing (but not too harsh) pink Phlox paniculata with massive heads that do not flop above mildew-free foliage. OROC will refuse no resemblant registrations based on the natural convergence of commercial requirements in our big world, knowing that the competition of likes and near equals lead to better plants over time. We will seek to distinguish them when possible by noting comparisons and contrasts in detail.

Principle 24.B. Reference to existing, objective cultivar evaluations and trial reports. While it is not the function of OROC or any other cultivar registration program to determine the garden merits, distinctiveness, or commercial potential for a given cultivar, we do reserve the link to respected university, plant society, and third part evaluation and trial programs and include this data in a cultivar data sharing section. Persons are welcome to submit links to proven trial organizations to provide a diversity of viewpoints on a particular cultivar from trial grounds around the world.

Principle 25. Conditional ornamental qualifications. We will accept registration in certain genera which contain high ornamental, landscape-worthy plants but refuse registration of cultivars purely for pomological, agronomic, olericultural, or non-aesthetic production of fruit, flowers, leaves, and other plants parts. Grounds for considering a taxon ornamental or semi-ornamental, even an edible-landscape plant, include but are not limited to: high colored or variegated foliage, highly colored and abundant fruit, unique plant habit, highly showy leaf colors such as gold, blue, or red foliage, showy bark or twigs, highly colored and abundant flowers, doubleness or incision of flower, incised or unusual lobing of the leaf blade, and fragrance of the flowers.

Principle 25. A. Subject to a 80% majority vote of the Board of Directors, OROC will only accept ornamental taxa in the following genera if proven or know to be ornamental and the originator must provide sufficient data to prove a highly aesthetic status: Brassica, Carya, Fragaria, Juglans, Lactuca, Malus, Musa, Pisium, Prunus, Pyrus, Punica, Rubus, Saccharum, and Zea.

Principle 26. Ban on Name Holding or Reservation. No system of cultivar name reservation or "holding" will be allowed or implemented. This ICRA abuse with hefty fees for name reservation and later for actual registration and later registration data changes will not be permitted at any time or place.

Principle 26.A. Fake cultivar rejection. Registrations based on previous "reserved" names fraudulently published for plants which do not yet exist, using doubtful images and descriptions will not be accepted. Some originators freely admit this practice and one had stated "the next good seedling I find will be called Y...and am laying claim to the name now". Registering a breeding or selection goal not extant or real will be rejected.

Principle 27. Preference for registration will not be dependent on any marketing opportunities, advertising participation, or other means of compensating the OROC project. All registrants will be treated equally regardless of participation, past or present.

Principle 27.A. All new cultivar registrations will be completely open on at least one website (currently the default www.cultivar.org) without requirement for membership, registration of use, signing up, transfer of personal information, ad presentations, or any other act even if free and without obligation. These listings are part of the OROC Data Sharing Program.

Principle 27.B. Complete, historical (past to present or past only) cultivar checklists and horticultural monographs if 100% free may require access by means of registration or sign for a newsletter, password, or similar program as a means of documenting use and assuring data integrity and security of these specialized, very large documents which fall outside the OROC Data Sharing Program. In most cases these documents contain images, text, and other contents which must preserve copyright compliance and previous legal agreements and are appropriate for sharing but maintaining the rights of authors, image copyright holders, and other considerations which do not permit free

exchange without considerations or conditions.

Principle 27.C. Respect for Existing Cultivar Publications. Due to existing author agreements, previous sales promises to customers, copyright notices, and publication contracts, some content at cultivar.org and other allied sites, namedly CULTIVAR.ORG DIRECT ACCESS will be exempt from OROC Data Sharing. We will endeavor to convert some CULTIVAR.ORG DIRECT ACCESS material to 100% OROC free content as legal and contractual obligations pass. It is not the purpose or goal of OROC to render horticultural authorship in terms of cultivar checklists, horticultural monographs, and other cultivar databases obsolete by demanding no-cost access at all times. Indeed the profit motive is essential to get great, large works completed and allow the authors to retire with modest royalties as they deserve and require.

Principle 27.D. OROC will encourage free sharing of large monographs and checklists, mindful of the necessity of authors to fund their careers, expensive research programs, highly beneficial breeding and conservation projects, preservation of their valuable gardens and worldclass collections in an era of high taxation, but trying to maximize the amount of free material at all times within these practical boundaries. OROC will seek the donation of manuscripts from living authors as well as gifts from the author's estate via secured, long-term gift management.

Principle 28. Mandate for New Technologies. We will use new technologies, communication media, and all other techniques of scientific, commercial, and informational merit to communicate our data. Currently we use the resources of 123contactform which provide real analytics, graphs, Google Maps to cultivar origins and display gardens, social media feeds, video embeds, numerous free marketing tools for registrants, JPG image uploads, and many other modern tools.;

Principle 29. Response Time Requirement.. Registrants and all parties will receive a response within 24 hours during business (weekdays) when possible and no later than 48 under any circumstance with a reply well-researched with due diligence, providing a complete answer when possible and a preliminary report when necessary. Followups must be swift and regular for complex projects at all times. We will never tolerate lack of responses and long delays as typical of ICRA and plant society communications under any terms as these are our valuable partners, friends, and worthy creators of our future gardens who demand respect and the highest level of honor at all times.

Principle 30. In the spirit of international scientific cooperation the OROC will at all times offer registration data to ICRA and other parties of similar standing and authority (such as well-known authors, breeders, scholars) in a given genus for their own use, consideration, providing no copyright restrictions on their use or sharing of this data. This effort will be proactive and not reactive, waiting only for requests.

Principle 31. Cultivar Group Registrations. Cultivar Groups may be registered as if an individual cultivar for the purposes of documenting this useful taxonomic grouping and establishing the originator or nominant in question. The group may be based on a trademarked entity such as FANCY® PINK, FANCY® WHITE, FANCY® RED, FANCY® PINK WITH WHITE EYE, FANCY® DARK RED, and FANCY® HOT PINK.

Principle 31. A. Cultivar Subgroup Registration. When a group of cultivars exceeds at least 8 taxa in terms of the combination of two major traits or two accepted Cultivar Groups or a clean genetic merger thereof, the Subgroup may be registered.

Principle 31. B. Cultivar Groups, SERIES, and trademarks. The group registration will be termed a SERIES if based on a trademarked entity such as FANCY® PINK, FANCY® WHITE, FANCY® RED, FANCY® PINK WITH WHITE EYE, FANCY® DARK RED, and FANCY® HOT PINK. This would known as the FANCY® Series but had their been 'Fancy White', 'Fancy Pink' it would be called the (Fancy Group) in the context of cultivar nomenclature

Principle 32. Annual Surveys for Improvement. OROC will conduct annual surveys of major plant originators, their organizations, and students to determine new ways to serve them better, communicate more information freely, efficiently, and in the most useful formats. The OROC Board of Directors is tasked for an annual action plan for implementation of the best survey ideas.

Principle 33. OROC Archives and INCA. We will archive all online and scanned documents in digital form to form an OROC Archive that will be distributed to all Board of Director members, Certified Cultivar Registrars (CCR), and selected universities for long-term storage and safe-keeping. Cultivar.org's INCA (Internet Nursery Catalog Archive) already has more than 40 gigabytes of cultivar description data since 2000 and will also be used in this archiving project. Due to copyright restrictions on nursery catalogs, academic journals, many websites, and formal books, the archive cannot be made available to the public. Our internal distribution is solely for purposes of maintaining the information over future years without loss of information as the internet or author's remove their contents.

Principle 34. OROC Non-profit Status. The OROC Board of Directors will consider and personally fund conversion of this group to an independent non-profit corporation at such time it deems appropriate and helpful to the mission. No fees, taxes, or other considerations will be charged for administration of the OROC program.

Principle 35, Respect for Patent and PBR Processes. We will respect the needs and requests of any originator to follow Plant Patent and Plant Breeders Rights rules and not interfere in those processes by premature communication or distribution of plant data.

Principle 35.A. We do reserve the right to publish knowledge of a cultivar if it appears in existing publications or is clearly on display in admissible areas of a public garden, and do so on the ground that Horticultural Media have access to this same plant imagery and data.

Principle 36. Selection and Role of CCR. Whenever possible, Commissioned Cultivar Registrars (CCR) will be selected for broad knowledge of many plant types and genera so they assist each other in backup roles for others when unavailable and to educate themselves on a richer diversity of plants. We wish to avoid dependence on any one or two people for individual genera processing and thus have wider, deeper expertise from collaboration.

Principle 36.A. CCR and the Board will have a ready pool of specialists available to assist the CCR in specific genera situations and complex or difficult decisions.

Principle 37. Multiple submission tools and forms. We want the data whether by little or much effort, simple to complex, and so OROC will accommodate all originators with

whatever level of time, devotion, detail focus, or control they wish when telling OROC about their new creation. When possible we will accept cultivar registrations with these styles of tools: 1) Just Tell Us. A simple email providing whatever data and links they can, 2) a simple short form that can be cut and pasted into email for even more information, and 3) a much more extensive, digital tool allowing capture of submitted images, Google maps, complex morphological radio and check boxes, more details history, social media feeds, multiple links and email approaches, and all available, powerful and yet useful technologies.

Principle 37.A. Mandate for registration tool innovation. Our volunteers including CCR and Board of Directors will at all time run experiments with new data submission and communication tools to not only offer better tools but new alternatives to familiar, existing, and more traditional ones. OROC staff will at all times educate themselves on new, affordable, rational communication tools, especially those free or at low cost to OROC, and always free to our consumers, learning from every new tool or platform, modifying them with skill, and always learning to be more, preserve more, and share more for the least possible effort and expense.