



New Tree Introductions

by Guy Meacham

Iowa State University - Shade Tree Short Course

February 2018

Acer campestre 'JFS Shichtel2'
Streetside® Maple

Royalty: \$1.50



Zone: 5
Height: 35'
Spread: 18'
Shape: Upright narrow oval
Foliage: Dark green
Fall Color: Yellow

INSECT RESISTANCE: Japanese beetle

Upright sweeping branches give this vigorous growing selection of Hedge Maple its distinctively narrow and upright form. Heat resistant dark green leaves stay fresh through the summer months and turn yellow in autumn.

Acer grandidentatum 'JFS-NuMex 3' PP 27930
Mesa Glow® Maple

Royalty: \$1.50

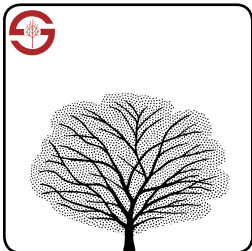


Zone: 4
Height: 28'
Spread: 18'
Shape: Upright oval
Foliage: Dark green
Fall Color: Orange red to red

Drought tolerance, cold hardiness and adaptability make this upright selection of the native bigtooth maple a top choice for the intermountain West. Glossy leaves and bold fall color distinguish this selection made by Rolston St. Hilaire of New Mexico State University.

Acer pseudosieboldianum × *palm.* 'Hasselkus'
Northern Glow® Maple

Royalty: \$1.00

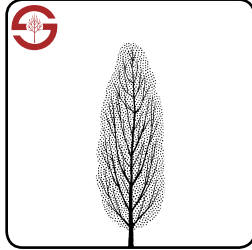


Zone: 4
Height: 20'
Spread: 24'
Shape: Upright, then broadly spreading
Foliage: Green
Fall Color: Bright orange-red to deep red

Enjoy the refined character of Japanese maple beyond its traditional hardiness range with this hybrid selection. Developed in Madison, WI, by Dr. Ed Hasselkus, it originated from seed of the tough and cold-hardy Korean maple, but most resembles its *A. palmatum* parent. Attractive in summer green, its graceful, spreading form glows bright with fall colors.

Acer rubrum 'JFS-KW78' PP 25301
Armstrong Gold® Maple

Royalty: \$1.25

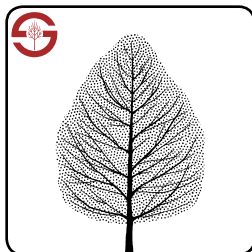


Zone: 4
Height: 40'
Spread: 12'
Shape: Narrow, tightly fastigate
Foliage: Medium green
Fall Color: Golden to orange

Selected from an evaluation of hundreds of seedlings of 'Armstrong', this cultivar improves greatly on the parent, with brighter foliage color, greater foliage density and compact, less leggy growth habit. Improved columnar form recommends it for narrow street planting sites.

Acer rubrum 'Frank Jr.' PP 16769
Redpointe® Maple

Royalty \$1.25

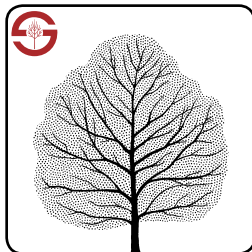


Zone: 5
Height: 45'
Spread: 30'
Shape: Broadly pyramidal
Foliage: Dark green
Fall Color: Bright red

Brilliant red fall color plus upright, broadly pyramidal form make this Schmidt introduction a standout. The refined form and foliage of the best *Acer rubrum* cultivars combine with the faster growth rate normally found in *Acer* × *freemanii*. A straight and dominant central leader results in strong branch angles that make it easier to grow.

Acer saccharum 'JFS-Caddo2' PP 23361
Flashfire® Maple

Royalty: \$.90

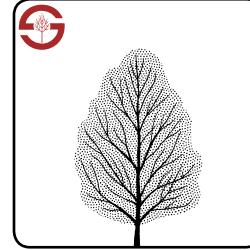


Zone: 4
Height: 45'
Spread: 40'
Shape: Broadly oval
Foliage: Dark green
Fall Color: Bright red

Selected from Caddo Mountain sugar maple seedlings, this tree has the brightest red fall color we have seen in a cultivar adapted to Southern heat. It features dark green summer foliage, better mildew resistance than other Caddo selections, strong growth, and brilliant red, early fall color.

Acer truncatum × *A. plat.* 'JFS-KW202' PP 21838
Crimson Sunset® Maple

Royalty: \$1.25

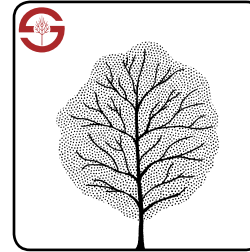


Zone: 4
Height: 35'
Spread: 25'
Shape: Upright oval
Foliage: Deep purple
Fall Color: Maroon to reddish bronze

Heat tolerance is the distinguishing characteristic of this *Acer truncatum* hybrid. Its foliage resembles that of Crimson King, but its form is more upright and compact. Thanks to the *Acer truncatum* parentage, it flourishes in the summer heat where few purple leafed plants will grow.

Acer truncatum × *A. plat.* 'JFS-KW249' PP 27985
Ruby Sunset® Maple

Royalty: \$1.25

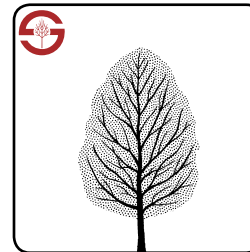


Zone: 4b
Height: 25'
Spread: 20'
Shape: Broadly oval to rounded
Foliage: Dark green, glossy
Fall Color: Deep red

Elegant foliage stays fresh and glossy throughout the growing season. Hybrid origin adds cold hardiness and adaptability to this selection that most resembles *A. truncatum* in appearance, growth habit and size. A great choice for smaller sites requiring a more compact tree.

Acer truncatum × *A. plat.* 'JFS-KW187' PP 27545
Urban Sunset® Maple

Royalty: \$1.25



Zone: 4b
Height: 35'
Spread: 20'
Shape: Narrow pyramidal to upright oval
Foliage: Dark green, glossy
Fall Color: Deep red

Compact, upright and narrow, this tree calipers well and develops a naturally uniform canopy with minimal pruning. Easy to grow and relatively problem free, it produces few seeds and develops an ideal, upright street tree form.

Carpinus betulus 'JFS-KW1CB' PP 22814

Emerald Avenue® Hornbeam

Royalty: \$1.50



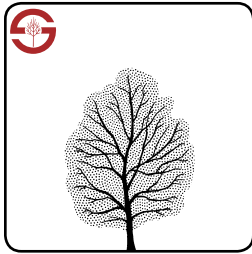
Zone: 5
Height: 40'
Spread: 28'
Shape: Broadly pyramidal to ovate
Foliage: Deep green
Fall Color: Yellow

A stout trunk, strong central leader, and sturdy branch arrangement led to our nicknaming this brawny tree "The Hulk." Vigorous and easy to grow, its performance is impressive on the street. When others look tired during the dog days of summer, Emerald Avenue® maintains healthy deep green foliage, thanks to its superior heat tolerance.

Carpinus caroliniana 'JFS-KW6'

Native Flame® American Hornbeam

Royalty: \$1.00



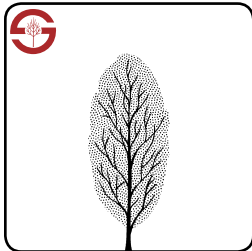
Zone: 5
Height: 30'
Spread: 20'
Shape: Upright oval
Foliage: Green
Fall Color: Red

This versatile native species is ripe for cultivar development, and Native Flame® leads the pack into bright fall colors. Selected for good upright growth and form, and especially for its bright red fall color. It combines the graceful informality of a native with the brilliant colors of a modern cultivar.

Carpinus caroliniana 'Uxbridge'

Rising Fire® American Hornbeam

Royalty: \$1.50



Zone: 4
Height: 30'
Spread: 15'
Shape: Upright, narrow
Foliage: Medium green
Fall Color: Red to orange

A lively mix of bright red and orange fall colors and distinctive columnar shape combine to offer a new look for a popular and widely adaptable North American native tree. Growers will appreciate its vigorous yet mannerly growth habit and ease of care in the nursery. Ontario, Canada origin promises good cold hardiness.

Catalpa speciosa 'Hiawatha 2'

Heartland® Catalpa

Royalty: \$1.00



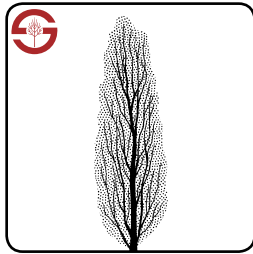
Zone: 5
Height: 50'
Spread: 25'
Shape: Upright narrow oval
Foliage: Dark green, large leaves
Fall Color: Yellow-green
Flower: White, in large clusters

Narrow form, upright growth habit, uniform branching, and darker green foliage recommend this improved selection of our native Northern Catalpa. Easier to grow in the nursery, it is more suitable for most landscape and street uses than seedling-grown trees of the species.

Celtis occidentalis 'JFS-KSU1'

Prairie Sentinel® Hackberry

Royalty: \$1.20



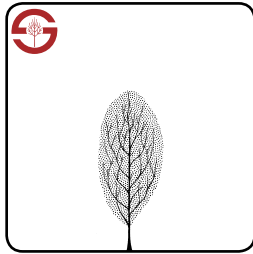
Zone: 4
Height: 45'
Spread: 12'
Shape: Tightly fastigate, columnar
Foliage: Medium green
Fall Color: Yellow

This fastigate hackberry fills the need for a columnar tree for narrow city streets in the toughest climates. Discovered in the rugged high plains of western Kansas, it has great adaptability to heat, drought, and cold of the prairie and harsh urban sites.

Cornus mas 'JFS PN4Legacy'

Saffron Sentinel™ Cornelian Cherry

Royalty: \$1.50



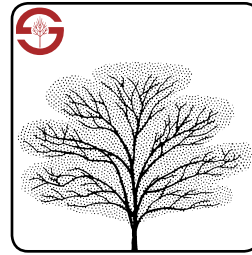
Zone: 4
Height: 22'
Spread: 12'
Shape: Columnar
Foliage: Dark green
Fall Color: Dark reddish purple
Flower: Bright yellow
Fruit: Bright red

Bright yellow flowers emerge along winter-bare branches of this vigorous, symmetrical, columnar Cornelian Cherry. Dark green foliage follows, remaining clean and dark green through the summer months before turning deep crimson in autumn. Tart and tasty bright red fruit ripens in late summer to early fall. Attractive dark brown bark exfoliates with age.

Cornus controversa 'June Snow-JFS'

June Snow™ Dogwood

Royalty: \$.40



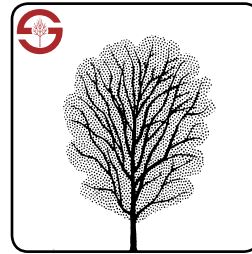
Zone: 5
Height: 30'
Spread: 40'
Shape: Horizontally layered, spreading
Foliage: Dark green
Fall Color: Orange to red
Flower: White, in flat topped clusters
Fruit: Blue-black, 1/4", clustered

Fast growing and wide spreading, with branches developing a horizontally tiered appearance. Flat topped clusters of white flowers often exceed 6" in diameter. Outstanding fall color; mottled orange-yellow, red, and purple-red.

Gymnocladus dioica 'Espresso-JFS'

Espresso™ Kentucky Coffee Tree

Royalty \$1.00



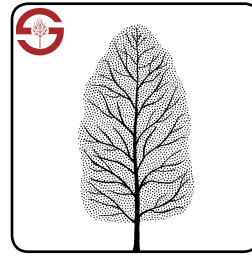
Zone: 4
Height: 50'
Spread: 35'
Shape: Oval to vase with upright arching branches
Foliage: Huge doubly compound leaves, bluish-green
Fall Color: Yellow

The huge doubly compound leaves give this tree a tropical feel, and the arching branches present an elm-like form. This is a seedless selection. Good tolerance of heat, drought, and cold.

Liriodendron tulipifera 'JFS-Oz'

Emerald City® Tulip Tree

Royalty: \$1.25



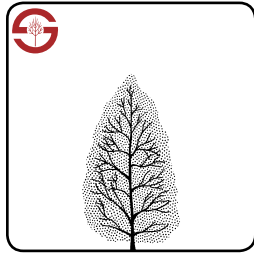
Zone: 4b
Height: 55'
Spread: 25'
Shape: Upright oval, slightly compact
Foliage: Deep green, glossy
Fall Color: Bright, clear yellow
Flower: Yellow to greenish yellow with orange center

A refined cultivar of our familiar native tulip tree, this uniform growing selection is straighter and more upright, with a dominant central leader and deeper green, slightly glossy foliage.

Magnolia 'NCMX1' P.A.F.

Mercury™ Magnolia

Royalty: \$1.50



Zone: 5
Height: 25'
Spread: 15'
Shape: Upright pyramidal
Foliage: Dark green
Fall Color: Yellow
Flower: Bright lavender pink, fragrant

Deep pink buds open to very large lavender pink blooms. Flowering up to a month later than other *M. soulangeana* cultivars greatly reduces risk of frost damage to blooms. A strong central leader and upright branching result in a tree with excellent pyramidal form. Developed by Dr. Tom Ranney of North Carolina State University.

Malus 'JFS KW214MX'

Ivory Spear™ Crabapple

Royalty: \$1.75



Zone: 4
Height: 18'
Spread: 7'
Shape: Narrow, tightly columnar
Foliage: Dark green
Flower: White
Fruit: Bright red, 1/2"

DISEASE RESISTANCE:

Scab: Excel. **Fireblight:** Excel.
Cedar-Apple Rust: Excel. **Mildew:** Excel.

Deep pink buds open to white flowers on this densely upright, narrow crabapple. Leaves stay clean and disease free throughout the growing season, forming a uniform column of dark green foliage in the landscape. Bright cherry red fruits contrast well with the dark green leaves and persist into late autumn, when a touch of yellow fall color adds seasonal interest.

Malus 'JFS KW213MX'

Raspberry Spear™ Crabapple

Royalty: \$1.75



Zone: 4
Height: 20'
Spread: 8'
Shape: Narrow upright column
Foliage: Purple
Flower: Magenta pink
Fruit: Maroon to deep red, 1/2", persistent

DISEASE RESISTANCE:

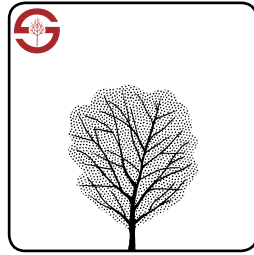
Scab: Excel. **Fireblight:** Excel.
Cedar-Apple Rust: Excel. **Mildew:** Excel.

Deep pink buds open to bright magenta flowers on this tightly columnar crabapple. Clean and disease-free summer foliage holds its dark purple color; bronzing on the older leaves in late summer and early fall, when orange tints appear. Purple-red fruits ripen to deep bright red and persist into late autumn or early winter.

Malus 'JFS-KW5' PP 14375

Royal Raindrops® Crabapple

Royalty: \$1.25



Zone: 4
Height: 20'
Spread: 15'
Shape: Upright spreading
Foliage: Purple, cutleaf
Fall Color: Orange-red
Flower: Bright pinkish red
Fruit: Red, 1/4", persistent

DISEASE RESISTANCE:

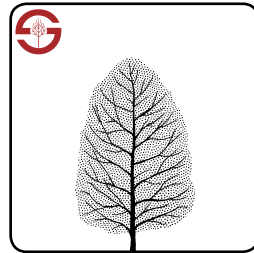
Scab: Excel. **Fireblight:** Good
Cedar-Apple Rust: Excel. **Mildew:** Good

Bright pinkish red flowers combine with deep purple cutleaf foliage to present a unique new crab. Deeply lobed leaves and upright form with good branching and density are inherited from its Golden Raindrops® parent. Nursery growth is outstanding, and it displays good to excellent resistance to the common diseases.

Nyssa sylvatica 'David Odom'

Afterburner® Tupelo

Royalty: \$1.25



Zone: 5
Height: 35'
Spread: 20'
Shape: Upright pyramidal to oval
Foliage: Bright green, glossy
Fall Color: Bright red
Fruit: Blue-black, 3/8"

Symmetrical, uniform and upright branch structure and straight central leader make this cultivar easier to grow and better suited than seedlings of the species for use as a street tree. High gloss foliage shines through the summer and then turns bright red in fall, burning brightly after most tupelo have defoliated.

Nyssa sylvatica 'JFS-red' PP 26795

Firestarter® Tupelo

Royalty: \$1.25



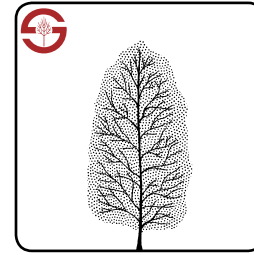
Zone: 5
Height: 35'
Spread: 18'
Shape: Narrow oval to upright oval
Foliage: Dark green
Fall Color: Bright red
Fruit: Seedless

Symmetrical, upsweeping branches and a strong central leader contribute to the remarkably neat and uniform appearance of this relatively narrow tupelo. Dark green foliage turns intensely bright red, coloring earlier in autumn than most cultivars.

Ostrya virginiana 'JFS-KW5'

Autumn Treasure® Hophornbeam

Royalty: \$1.25



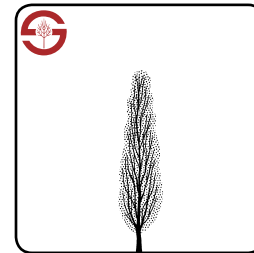
Zone: 4
Height: 40'
Spread: 20'
Shape: Upright pyramidal to oval
Foliage: Dark green
Fall Color: Golden yellow

At last, a hophornbeam suited for city living. Predictably upright narrow form facilitates uniform street tree plantings. Unlike many trees of seedling origin that hold brown leaves throughout the winter, fall leaf drop is clean and complete.

Populus tremuloides 'JFS-Column'

Mountain Sentinel® Aspen

Royalty: \$.90



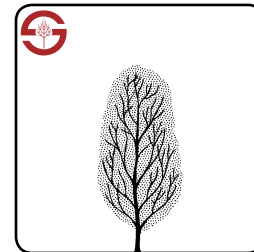
Zone: 3
Height: 35'
Spread: 8'
Shape: Narrow, fastigate
Foliage: Green, trembles in breeze
Fruit: Seedless
Fall Color: Yellow

Our native aspen is now available in fastigate form! Extremely narrow and upright, with ascending branches, it has the same silvery-gray bark, fluttering leaves, and golden yellow fall color, but in a much narrower form.

Prunus 'JFS-KW14' P.A.F.

First Blush® Cherry

Royalty: \$1.50



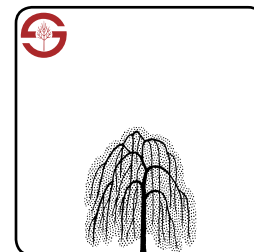
Zone: 5
Height: 25'
Spread: 12'
Shape: Upright narrow oval
Foliage: Dark green
Fall Color: Orange to orange red
Flower: Pink, double, fragrant

Double pink flowers smother the branches of this very narrow, upright cherry in early spring. The breathtaking floral display gives way to dark green, finely textured, disease resistant leaves that turn bright orange to orange red in autumn.

Prunus 'NCPH1' PP 27579

Pink Cascade® Cherry

Royalty: \$1.50



Zone: 5
Height: 12'
Spread: 12'
Shape: Weeping
Foliage: Dark green, fine textured
Fall Color: Orange
Flower: Bright pink, prolific

Bright pink flowers smother the branches of this gracefully weeping cherry, setting it apart from the popular white-blooming Snow Fountains® Cherry which it resembles in summer appearance. Developed at North Carolina State University, this small and delicate garden tree is easy to grow.

Prunus sargentii 'JFS-KW58'

Pink Flair® Cherry

Royalty: \$.75



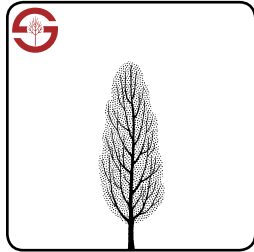
Zone: 3b
Height: 25'
Spread: 15'
Shape: Upright narrow vase
Foliage: Dark green
Fall Color: Orange-red
Flower: Single pink, in clusters

Narrow and upright in form, but compact in height, this flowering cherry is well suited for urban landscapes. It avoids frost damage by flowering a week or two later than is typical of the species and has proven to be the hardiest of the flowering cherries. Fall color is consistently bright orange-red, and its handsome bark and upright symmetrical provide winter appeal.

Pyrus 'NCPX1' PP 26539

Javelin® Pear

Royalty: \$1.25



Zone: 5
Height: 35'
Spread: 10'
Shape: Fastigiate, tightly columnar
Foliage: Purple to bronze green
Fall Color: Purple to maroon
Flower: Pink buds open to white flowers

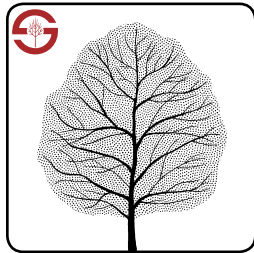
DISEASE RESISTANCE: Fireblight

The tightest and most columnar pear we have seen, it stays narrow as it matures. Unique foliage leaves out purple, and matures to bronze green in the heat of summer. Developed at North Carolina State University, this fireblight resistant pear is a great addition as a landscape exclamation point or for use on narrow streets.

Quercus bicolor 'JFS-KW12' PP 23632

American Dream® Oak

Royalty: \$1.50



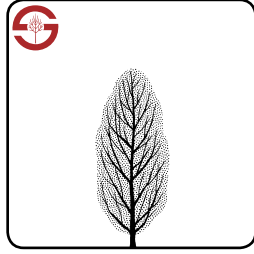
Zone: 4
Height: 50'
Spread: 40'
Shape: Broadly pyramidal
Foliage: Bright green, glossy
Fall Color: Yellow

Vigorous growing and broadly pyramidal with excellent density, this tree shines with bright green, glossy foliage. Selected for strong resistance to anthracnose and powdery mildew, the broad, handsome leaves turn yellow and then tawny brown as they hold into early winter.

Quercus bicolor 'Bonnie and Mike'

Beacon® Oak

Royalty: \$1.50



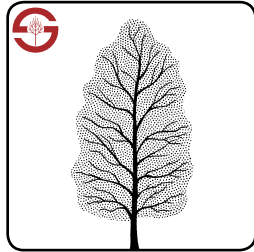
Zone: 4
Height: 40'
Spread: 15'
Shape: Narrowly columnar
Foliage: Green
Fall Color: Yellow

Tightly columnar and urban adaptable, this oak was discovered by famed plantsman Dr. Michael Dirr. The stout upright branching structure and dense green foliage makes this an ideal street tree and provide a strong visual statement. Nice yellow fall color.

Quercus macrocarpa 'JFS-KW3' PP 22815

Urban Pinnacle® Oak

Royalty: \$1.25



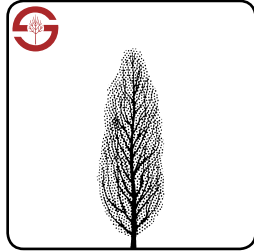
Zone: 3
Height: 55'
Spread: 25'
Shape: Narrow, pyramidal to oval
Foliage: Dark green, glossy
Fall Color: Yellow
Fruit: Small acorn

Narrow and upright with a strong central leader, this cultivar also features attractive glossy foliage and resistance to both mildew and anthracnose. Acorns of about 1/2" diameter are extremely small for a bur oak, making it a more suitable tree for landscape and street tree use.

Quercus robur x *alba* 'Crimschmidt'

Crimson Spire™ Oak

Royalty \$1.00



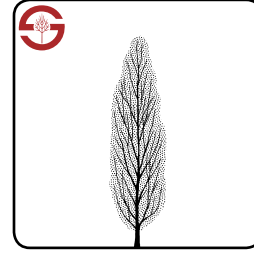
Zone: 4
Height: 45'
Spread: 15'
Shape: Columnar, tightly fastigiate
Foliage: Dark green to bluish-green
Fall Color: Rusty red

This columnar selection originated as a hybrid of *Q. robur* and *Q. alba*. White oak parentage provides dark green, mildew resistant foliage and reddish fall color. Fastigiate growth habit is inherited from the English oak side.

Quercus robur x *alba* 'JFS-KW2QX' PP 24442

Skinny Genes® Oak

Royalty: \$1.50



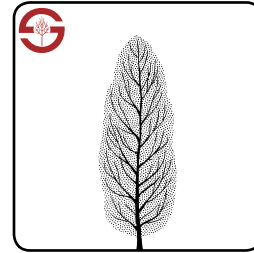
Zone: 4
Height: 45'
Spread: 10'
Shape: Columnar, tightly fastigiate
Foliage: Dark green, glossy
Fall Color: Yellow to tawny yellow

Columnar and fastigiate in form, it is the narrowest yet of the English x White Oak hybrids. The glossy, very dark green summer foliage is mildew resistant and gives a clean summer appearance, then turns yellow in autumn. Selected from second-generation seedlings of a sister of Crimson Spire™.

Quercus robur x *alba* 'JFS-KW1QX'

Streetspire® Oak

Royalty: \$1.50



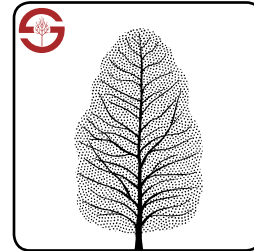
Zone: 4
Height: 45'
Spread: 14'
Shape: Narrow, columnar
Foliage: Dark green
Fall Color: Rusty red

Dark green leaves of this narrowly columnar tree are mildew resistant. Turning red in autumn, they fall to reveal stiffly upright branches. Similar to Crimson Spire™, but does not hold brown foliage through the winter. Wide crotch angles and short upsweeping branches create a storm resistant structure.

Taxodium distichum 'JFS-SGPN'

Green Whisper® Bald Cypress

Royalty: \$1.00



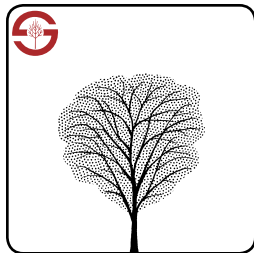
Zone: 5
Height: 55'
Spread: 30'
Shape: Pyramidal
Foliage: Fresh, bright green
Fall Color: Rusty orange

The freshest, softest, brightest green foliage that we have seen in a bald cypress gives this tree an inviting appearance and the appeal of a fluffy green feather pillow. Vigorous growth and upright pyramidal form also make it stand out from seedlings.

Ulmus propinqua 'JFS-Bieberich'

Emerald Sunshine® Elm

Royalty \$1.25



Zone: 5
Height: 35'
Spread: 25'
Shape: Vase
Foliage: Deep green
Fall Color: Yellow

INSECT RESISTANCE:

Japanese and elm leaf beetles

DISEASE TOLERANCE:

Dutch elm disease and phloem necrosis

Grown from seed collected in China, this sturdy, upright-growing elm was selected for superior performance on the hot, arid, windswept plains of western Oklahoma. Handsome, deeply corrugated leaves emerge coppery-bronze and mature to glossy green. Insect resistant and tolerant of heat and drought, it is a fast-growing, tough and adaptable shade tree.

Zelkova serrata 'JFS-KW1' PP 20996

City Sprite® Zelkova

Royalty \$1.00



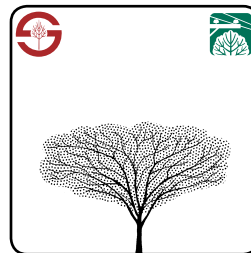
Zone: 5
Height: 24'
Spread: 18'
Shape: Compact oval to vase
Foliage: Bright green, fine textured
Fall Color: Yellow

Compact, dense, and semi-dwarf, this is the perfect little tree for tight urban spaces. Summer foliage appears brighter green than typical Zelkova. Short internodes, fine textured foliage, and a tidy growth habit promise a low maintenance city tree.

Zelkova serrata 'Schmidtlow'

Wireless® Zelkova

Royalty \$1.00



Zone: 5
Height: 24'
Spread: 36'
Shape: Broadly spreading vase
Foliage: Medium green
Fall Color: Red

Selected for its low height and broad spreading shape, this cultivar has an ideal shape for street plantings under utility lines. Its red fall color is a surprising bonus feature.