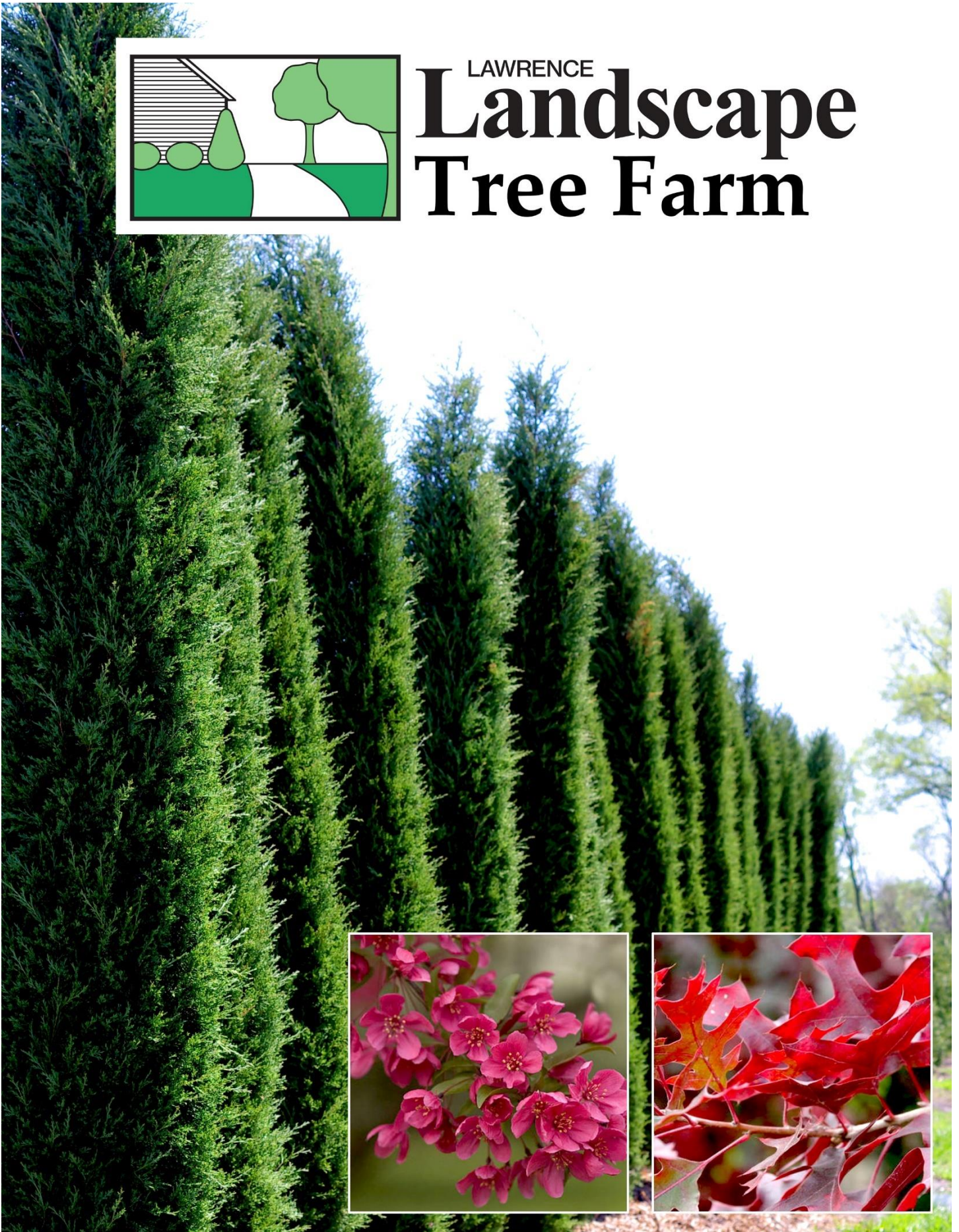


LAWRENCE
**Landscape
Tree Farm**



CRABAPPLES



Crabapple, Coralburst

(Malus 'Coralburst')

15'H x 15'W

Coral Pink Flowers in Spring.

Bronze fruit in the Fall.

Coralburst Crabapple typically does not face as many pest and disease issues as other crabapples.

Crabapples: Best grown in medium moisture, well-drained, acidic loams in full sun. Adapts to a wide range of soils. Established trees have some drought tolerance. Although some flowers may be lost, it is best to prune this tree as needed in late winter. Spring pruning should be avoided as it produces fresh, open cuts where fireblight bacterium can enter. The main diseases of crabapple are scab, fire blight, rusts, leaf spot and powdery mildew. Potential insect pests are of lesser concern and include tent caterpillars, aphids, Japanese beetles, borers and scale. Spider mites may occur.



Crabapple, Firebird

(Malus sargentii 'Firebird')

8'H x 10'W

White Flowers in Spring. Dark Green foliage.

Fruit is cedar-apple rust in Fall.

Excellent Disease resistance.

Crabapples: Best grown in medium moisture, well-drained, acidic loams in full sun. Adapts to a wide range of soils. Established trees have some drought tolerance. Although some flowers may be lost, it is best to prune this tree as needed in late winter. Spring pruning should be avoided as it produces fresh, open cuts where fireblight bacterium can enter. The main diseases of crabapple are scab, fire blight, rusts, leaf spot and powdery mildew. Potential insect pests are of lesser concern and include tent caterpillars, aphids, Japanese beetles, borers and scale. Spider mites may occur.



Crabapple, Lollipop

(Malus 'Lollipop')

10'H x 10'W

White Flowers in Spring.

The most common pests that will afflict this tree are Japanese beetles, scale insects and aphids.

Crabapples: Best grown in medium moisture, well-drained, acidic loams in full sun. Adapts to a wide range of soils. Established trees have some drought tolerance. Although some flowers may be lost, it is best to prune this tree as needed in late winter. Spring pruning should be avoided as it produces fresh, open cuts where fireblight bacterium can enter. The main diseases of crabapple are scab, fire blight, rusts, leaf spot and powdery mildew. Potential insect pests are of lesser concern and include tent caterpillars, aphids, Japanese beetles, borers and scale. Spider mites may occur.



Crabapple, Pink Princess

(Malus 'Pink Princess')

7'H x 10'W

Pink Flowers Mid Spring. Dark Green Foliage turns Yellow in Fall. A pink flowered, red leaf form of Sargent Crab. A naturally dwarf tree with all the desirable features of Sargent, but in a new color.



Crabapple, Prairiefire

(Malus 'Prairiefire')

20'H x 20'W

Red-Pink Flowers in Spring.

Purple Foliage turn Bronze in Fall.

Crabapples: Best grown in medium moisture, well-drained, acidic loams in full sun. Adapts to a wide range of soils. Established trees have some drought tolerance. Although some flowers may be lost, it is best to prune this tree as needed in late winter. Spring pruning should be avoided as it produces fresh, open cuts where fireblight bacterium can enter. The main diseases of crabapple are scab, fire blight, rusts, leaf spot and powdery mildew. Potential insect pests are of lesser concern and include tent caterpillars, aphids, Japanese beetles, borers and scale. Spider mites may occur.



Crabapple, Royal Raindrops

(Malus 'Royal Raindrops')

20'H x 15'W

Red-Pink Flowers in the Spring.

Purple Foliage.

Royal Raindrops has good disease resistance to the main diseases of crabapples.

Crabapples: Best grown in medium moisture, well-drained, acidic loams in full sun. Adapts to a wide range of soils. Established trees have some drought tolerance. Although some flowers may be lost, it is best to prune this tree as needed in late winter. Spring pruning should be avoided as it produces fresh, open cuts where fireblight bacterium can enter. The main diseases of crabapple are scab, fire blight, rusts, leaf spot and powdery mildew. Potential insect pests are of lesser concern and include tent caterpillars, aphids, Japanese beetles, borers and scale. Spider mites may occur.



Crabapple, Sargent
(*Malus sargentii*)
8'H x 12'W

Bright Red Buds opening to White Flowers in the Spring. A natural dwarf with horizontal spreading branches. These are laden with bright red fruits that persist long into the winter months. Outstanding when planted in groups.



Crabapple, Sargent Tina
(*Malus 'Tina'*)
5'H x 6'W

White Flowers in the Spring.

'Tina' has excellent disease resistance. Minor susceptibility to apple scab, leaf spot and fire blight.

Crabapples: Best grown in medium moisture, well-drained, acidic loams in full sun. Adapts to a wide range of soils. Established trees have some drought tolerance. Although some flowers may be lost, it is best to prune this tree as needed in late winter. Spring pruning should be avoided as it produces fresh, open cuts where fireblight bacterium can enter. The main diseases of crabapple are scab, fire blight, rusts, leaf spot and powdery mildew. Potential insect pests are of lesser concern and include tent caterpillars, aphids, Japanese beetles, borers and scale. Spider mites may occur.



Crabapple, Spring Snow

(Malus 'Spring Snow')

25'H x 20'W

White with Red Eye Flowers in the Spring.
Green Foliage.

'Spring Snow' is very susceptible to apple scab. Slight susceptibility to the other main diseases of crabapples.

Crabapples: Best grown in medium moisture, well-drained, acidic loams in full sun. Adapts to a wide range of soils. Established trees have some drought tolerance. Although some flowers may be lost, it is best to prune this tree as needed in late winter. Spring pruning should be avoided as it produces fresh, open cuts where fireblight bacterium can enter. The main diseases of crabapple are scab, fire blight, rusts, leaf spot and powdery mildew. Potential insect pests are of lesser concern and include tent caterpillars, aphids, Japanese beetles, borers and scale. Spider mites may occur.



Crabapple, Sugar Tyme

(Malus 'Sugar Tyme')

18'H x 15'W

White Flowers in the Spring.

Green Foliage. Red Fruits turn red in the Fall.

Fragrant white flowers smother Sugar Tyme in spring.
Persistent red fruits provide a fine fall and winter display.

OTHER FLOWERING DECIDUOUS



Lilac, Japanese Ivory Silk

(*Syringa reticulata*)

20'H x 15'W

Creamy White Flowers in Spring.

Average, medium moisture, well-drained soil in full sun. Tolerates light shade, but best bloom occurs in full sun. Prefers organically rich, moist, slightly acidic soils with good drainage. Need good air circulation. To the extent practicable, faded flower panicles should be removed prior to seed set. Prune as needed immediately after flowering. No serious insect or disease problems. It reportedly has good resistance to some of the major pests, such as powdery mildew, scale and borers. It has some susceptibility to additional diseases including blights, leaf spots, wilt and ring spot virus. Additional insect pests of note include caterpillars and leaf miner. Flower buds susceptible to frost injury in early spring.



Redbud, Eastern

(*Cercis Canadensis*)

25'H x 30'W

Reddish-purple bud, Rosy-Pink when open.

Flowers in the early Spring.

Clusters of bright rosy-pink to magenta blooms crowd along the winter-bare branches of this springtime favorite, weeks before its heart-shaped green leaves emerge.

It's an attractive small shade tree and a fine choice for naturalized garden areas and woodland edges.



Redbud, Forest Pansy

(*Cercis canadensis* 'Forest Pansy')

20'H x 25'W

Deep purple paling to bronze-green Foliage.

Flowers Magenta rose in the Spring.

A highly prized red-leaved selection of Eastern Redbud. Delicate magenta rose flowers appear before the foliage. New growth is exceptionally glossy.



Tulip Tree
(*Liriodendron tulipifera*)
60'H x 30'W

Best grown in moist, organically rich, well-drained loams in full sun. Tolerates part shade. Watch for aphids and scale. Potential diseases include verticillium wilt, mold, mildew and canker. Large aphid infestations result in honeydew secretions on the leaves that provide the growing medium for sooty mold. Trees are fast-growing and somewhat weak wooded, making them susceptible to limb breakage in high winds or from ice/snow. Shallow root system limits the types of plants that may be grown within the drip line.

DECIDUOUS



Cypress, Shawnee Brave
(*Taxodium distichum* 'Shawnee Brave')
55'H x 20'W
Rusty Orange Fall Color

Best grown in average, medium to wet, moisture-retentive soils in full sun. Prefers moist, acidic, sandy loams, but tolerates a wide range of soil conditions ranging from average moisture garden soils to wet soils. Healthy, well-maintained plants in the proper growing conditions usually have few problems. Twig blight and rots may occur. Watch for spider mites.



Elm, Allee
(*Ulmus parvifolia* 'Allee')
50'H x 35'W
Yellow Fall Color

Grow in average, medium moisture, well-drained soils in full sun. Tolerant of light shade. Prefers rich, moist loams. Adapts to a variety of different soils and tolerates both wet and dry sites. ALLEE has excellent resistance to Dutch elm disease and elm leaf beetle. It also has excellent resistance to leaf scorch, dieback symptoms and cold winter weather. Phloem necrosis, wetwood, various wilts, rots and cankers may occur. Insect visitors may include borers, leaf miner, beetles, mealy bugs, caterpillars and scale.



Elm, Frontier

(*Ulmus* x 'Frontier')

40'H x 30'W

Reddish-Purple to Burgundy Fall Color

Frontier Elm is highly adaptable to soil types, as long as they drain well. Give it at least four hours of direct sunlight a day. For the best results, plant where it has good air circulation and provide supplemental water. The Frontier Elm has a disease tolerance to Dutch Elm Disease and phloem necrosis.



Elm, Princeton

(*Ulmus americana* 'Princeton')

70'H x 50'W

Yellow Fall Color

Grow in average, medium moisture, well-drained soils in full sun. Tolerant of light shade. Prefers rich, moist loams. Adapts to both wet and dry sites. Generally tolerant of urban conditions. Regular pruning and spraying is advisable because of Dutch elm disease threat. 'Princeton' has reported excellent resistance to Dutch elm disease. It is susceptible to phloem necrosis which is a disease caused by a phytoplasma that attacks the food-conducting tissue of the tree, usually resulting in a loosening of the bark, wilting, defoliation and death. It is also susceptible to wetwood which is a bacterial disease that results in wilting and dieback. Various wilts, rots, cankers and leaf spots may also occur. Insect visitors include borers, leaf miner, beetles, mealy bugs, caterpillars and scale.



Kentucky Coffee Tree

(*Gymnocladus dioica*)

50'H x 35'W

Yellow Fall Color

Best grown in moist, organically rich, well-drained soils in full sun. Tolerates poorer soils and drought. Avoid heavy clays however. Also adapts well to urban conditions. Suckers to form colonies in the wild. No serious insect or disease problems. Leaves and seedpods can create litter problems.

Linden, Greenspire

(*Tilia cordata* 'Greenspire')

40'H x 30'W

Gold Fall Color



Once the roots have established, the tree becomes more drought-tolerant after the first few years. However, during those early years, the young trees will need a moderate amount of water. If you have the chance of a drought, you will need to check the moisture level of the young tree. Any maintenance pruning should be done in the late winter to early spring before new growth begins for the season. You will not have to prune too much since the tree does tend to keep its form. This tree can grow dense. If you want to thin the crown, pruning should be done to a few interior branches. By removing some branches, you can loosen up the crown and keep it from becoming too compact. Several fungi cause cankers and dieback on branches and trunks. Remove infected branches as they occur, avoid wounding the tree. Fertilizing infected trees may help. Powdery mildew forms a white coating on the leaves but is usually not serious and doesn't require treatment.

Locust, Shademaster

(*Gleditsia triacanthos* var. *inermis* 'Shademaster')

50-75'H x 25-40'W

Yellow Fall Color



Although the Shademaster Honeylocust is a hardy species, it does prefer a few conditions to truly thrive. Does best in full sunlight and well-drained soil. While it can tolerate partial shade, it won't grow as vigorously. Despite its hardiness, it's susceptible to a few diseases and pests. Honeylocust Borer, integrated Pest Management strategies can help minimize borer damage. Leaf spot diseases are common but can be controlled with proper pruning and by avoiding overhead watering.

Locust, Skyline

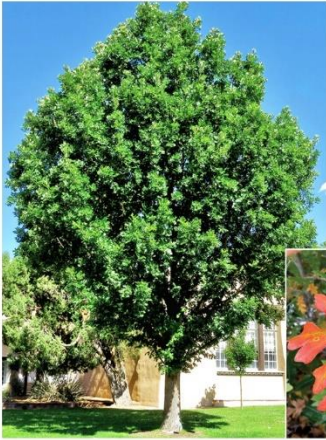
(*Gleditsia triacanthos* var. *inermis* 'Skyline')

45'H x 35'W

Golden Yellow Fall Color



Best grown in organically rich, moist, well-drained soils in full sun. Tolerant of a wide range of soils. Also tolerant of wind, high summer heat, drought and saline conditions. Honey locust is susceptible to a large number of potential disease problems, including leaf spot, canker, witches' broom, powdery mildew and rust. Borers and webworms are common insect problems in some areas. Bagworms, plant bug, leafhopper and leaf miner may appear. Watch for spider mites.



Oak, Bur

(*Quercus macrocarpa*)

55'H x 40'W

Golden to Yellow-Brown Fall Color

Plant in a full sun location. Handles many soil types and pH levels—sand, salt, clay, alkaline, acidic, and neutral. Needs regular watering until established; long taproot helps it become drought resistant. Bur oak blight is caused by a native fungal pathogen, *Tubakia iowensis*, which likely has been intensified by above-average spring rainfall since the 1990s.

Wedge-shaped leaf death (tip of leaf) and leaf vein browning (bottom right of leaf) are telltale signs of bur oak blight.



Oak, Crimson Spire

(*Quercus x bimundorum* 'Crimson Spire')

35-45'H x 8-12'W

Red Fall Color

More tolerant of wet sites than its white oak parent, but well-drained sites are best. It's intolerant to salt. Prune oaks in the dormant season to avoid attracting beetles that may carry oak wilt. Oak wilt, anthracnose, two-lined chestnut borer are possible problems. It's resistant to powdery mildew.



Oak, Northern Red

(*Quercus rubra*)

50'H x 40'W

Deep Red Fall Color

Easily grown in average, dry to medium moisture, acidic soil in full sun. Prefers fertile, sandy, finely-textured soils with good drainage. Generally a durable and long-lived tree. Susceptible to oak wilt which is a systemic fungal disease that has no cure. Chlorosis (yellowing of the leaves while the veins remain green) often occurs when soils are not sufficiently acidic.



Oak, Sawtooth

(*Quercus acutissima*)

40'H x 40'W

Yellow to Golden Brown Fall Color

Best grown in rich, humusy, medium moisture, well-drained soils in full sun. Adapts to a wide range of soils. Tolerant of heat and humidity. First respectable crops of acorns may occur as early as 10 years. Chlorosis (yellowing of the leaves) is common in neutral to alkaline soils, and can severely damage the tree. Otherwise, sawtooth oak is considered to be a low-maintenance tree with good pest resistance. Oaks in general are susceptible to a large number of diseases, including oak wilt, chestnut blight, shoestring root rot, anthracnose, oak leaf blister, cankers, leaf spots and powdery mildew. Potential insect pests include scale, oak skeletonizer, leaf miner, galls, oak lace bugs, borers, caterpillars and nut weevils.



Oak, Scarlet Red

(*Quercus coccinea*)

50'H x 40'W

Brilliant Shades of Red Fall Color

Easily grown in average, dry to medium, well-drained soil in full sun. Prefers dry, acidic, sandy soils. No serious problems. Leaf spots, anthracnose, canker, mildew, rust, wilts, rots, galls and numerous insect problems have been reported. However, this tree is long-living, durable and considered to be low-maintenance to grow. Scarlet oak is not subject to chlorosis problems as much as the closely related pin oak (*Q. palustris*).



Oak, Shumard Red

(*Quercus shumardii*)

50'H x 40'W

Red Fall Color

Easily grown in average, dry to medium moisture, acidic, well-drained soils in full sun. Tolerates a wide range of soil conditions including wet soils. Generally a durable and long-lived tree, but is susceptible to a large number of potential diseases and insect pests, including anthracnose, canker, leaf spot, rust, blight, galls, caterpillars, borers, leaf miners, oak lace bug and oak mite. Chlorosis (yellowing of the leaves while the veins remain green) often occurs when soils are not properly acidic. Can be difficult to transplant and establish.



Oak, Swamp White

(*Quercus bicolor*)

45'H x 45'W

Golden Fall Color

Easily grown in average, medium to wet, acidic soil in full sun. Generally a durable and long-lived tree, but is susceptible to a large number of potential diseases and insect pests, including anthracnose, canker, leaf spot, rust, blight, galls, caterpillars, borers, leaf miners, oak lace bug and oak mite. Chlorosis (yellowing of the leaves while the veins remain green) often occurs when soils are not properly acidic. Can be difficult to transplant and establish.



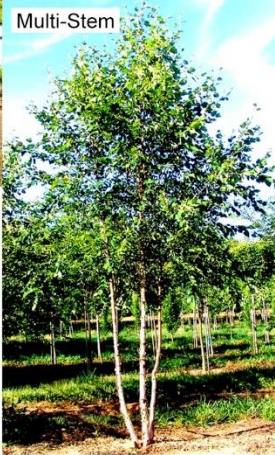
White Shield Osage Orange

(*Maclura pomifera* 'White Shield')

35'H x 35'W

Yellow Fall Color

Both fruitless and thornless, this tough Midwest native was found in western Oklahoma by plantsman Steve Bieberich. The most thornless of the Osage Orange cultivars, this heat and drought tolerant tree has remarkably dark green, glossy foliage.



River Birch, Heritage
(*Betula nigra* 'Heritage' Cully)
40'H x 30'W ~ Yellow Orange Fall Color

Easily grown average, medium to wet soils in full sun to part shade. River birch is perhaps the most culturally adaptable and heat tolerant of the birches. Prefers moist, acidic, fertile soils including semi-aquatic conditions, but also tolerates drier soils. Consider using soaker hoses and bark mulches to keep the root zones cool and moist. Adapts well to heavy clay soils of Missouri and will tolerate poor drainage. Avoid pruning in spring when the sap is running. One of the most disease-free birches. Most species of birch grow best in cool, northern climates, but do not adapt well to the hot summers of USDA Zones 5-9 and can be short-lived therein. Weakened birches become vulnerable to the bronze birch borer which typically infects and kills birches stressed by summer heat and humidity. Although river birches have some susceptibility to aphids, leaf miner and iron chlorosis in high pH soils, these problems are somewhat minor in comparison to the birch borer. 'Cully' is extremely resistant to the bronze birch borer and also has good resistance to leaf spot diseases.



Zelkova, Green Vase
(*Zelkova serrata* 'Green Vase')
45'H x 30'W
Orange and Bronze Fall Color

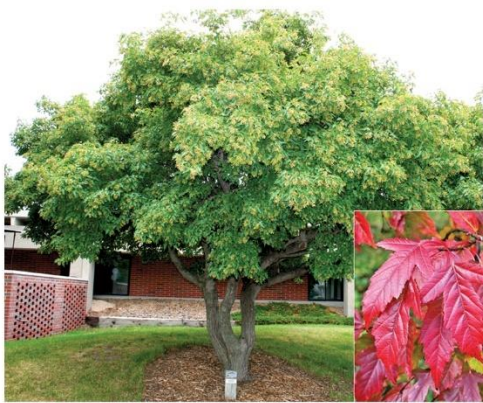
Easily grown in average, medium wet, well-drained soils in full sun. Established trees tolerate some drought. Prefers rich, moist loams. Generally tolerant of urban conditions. No serious insect or disease problems. Highly resistant to Dutch elm disease. Phloem necrosis, wilts and cankers may occur. Insect visitors include leaf miner, beetles and scale. Spider mites can be a problem in hot, dry summers.



Zelkova, Musashino
(*Zelkova serrata* 'Musashino')
45'H x 15'W
Yellow/Gold, Red/Orange Fall Color

Does well in moist and well-drained soils. Tolerant of both acidic and alkaline soils. Tolerant of tough urban conditions, more heat and drought tolerant than other Zelkova varieties, once well established. Leafrollers may be seen. Japanese zelkova is usually disease-free and is resistant to Dutch Elm disease and Elm beetle.

MAPLES



Amur Flame
(*Acer ginnala* 'Flame')
15-20'H x 15-20'W
Red Fall Color

Performs well in full sun or bright, sun-dappled locations. Some tolerance for drought. Best performance occurs in areas with cool summer climates. Transplants easily. No serious insect or disease problems. Verticillium wilt, stem canker, leaf spots, tar spot and anthracnose may appear. Watch for aphids, borers, scale, leafhoppers, caterpillars and mites.



Armstrong
(*Acer ginnala* 'Flame')
45'H x 15'W
Red Fall Color

Easily grown in average, medium to wet, well-drained soils in full sun to part shade. Prefers moist, acidic soils with good drainage. Established trees have some tolerance for drought conditions. No serious insect or disease problems. Young plants susceptible to leafhoppers and scale. Borers.



Autumn Blaze

(*Acer x freemanii* 'Autumn Blaze')

50'H x 40'W

Bright Red Fall Color

Easily grown in average, medium to wet, well-drained soils in full sun to part shade. Prefers moist, acidic soils with good drainage. Established trees have some tolerance for drought conditions. No serious insect or disease problems. Young plants susceptible to leafhoppers and scale. Borers.



Autumn Fantasy

(*Acer x freemanii* 'DTR 102')

50'H x 40'W

Bright Red Fall Color

Benefits from regular watering during the first year. More water will encourage faster growth, but drought-tolerant once established. It's think bark makes winter protection critical, even as the tree increases in caliper. You may notice some small red galls on leaves caused by insect feeding; this is purely cosmetic and should not be treated. All Maples are susceptible to the Verticillium Wilt.



Crimson Sunset

(*Acer truncatum* x *A. platanoides* 'Crimson Sunset')

35'H x 25'W

Maroon to reddish-bronze Fall Color

Multipurpose tree adaptable to soil texture conditions. Keep it in full sun to partial shade and avoid standing water. Worst pest are aphids, borers, caterpillars, leafhoppers, and scale. Chief disease problems are canker, fungal leaf spot (including anthracnose), root rot, and verticillium wilt. Pest can often be eradicated by using neem oil.



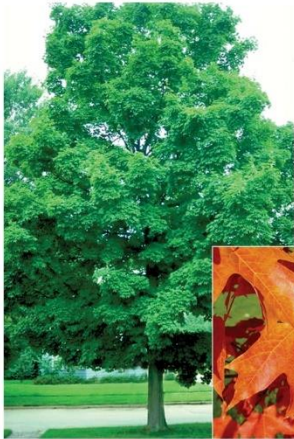
Emerald Lustre

(*Acer platanoides* 'Pond')

50'H x 50'W

Yellow Fall Color

Easily grown in average, medium moisture, well-drained soil in full sun to part shade. Best in full sun. Prone to a number of diseases, including Powdery mildew, tar spot, verticillium wilt, and anthracnose. Discoloration of leaves, wilting, and eventual limb death are all symptoms of these diseases. Winter is the best time to perform corrective pruning to get rid of diseased, dying, and dead branches. Requires little care overall, it should only be pruned in the summer after the leaves have fully matured to prevent the tree from "bleeding" sap.



Maple, Fall Fiesta

(*Acer saccharum* 'Fall Fiesta')

50'H x 40'W

Orange, Red, Yellow mix Fall Color

Easily grown in average, medium moisture, well-drained soil in full sun to part shade. Best in fertile, slightly acidic, moist soils in full sun. Grows poorly in compacted, poorly drained soils. Intolerant of road salt. Generally intolerant of urban pollution. Susceptible to verticillium wilt, anthracnose, cankers, leaf spot and tar spot. Also susceptible to aphids, borers and scale. Leaf scorch may be a problem in drought conditions. Has been frequently used as a street tree, but is generally intolerant of road salt, soil compaction and pollution.



John Pair

(*Acer saccharum* 'John Pair')

30'H x 30'W

Orange-Red Fall Color

Should only be grown in full sunlight. Prefers average to moist conditions, and shouldn't be allowed to dry out. Not particular as to soil PH, but grows best in rich soils. Very disease and insect resistant.



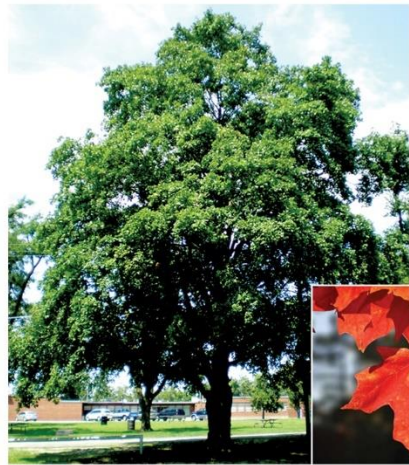
October Glory

(*Acer rubrum* 'October Glory')

40'H x 35'W

Reddish-Orange Fall Color

Easily grown in average, medium to wet, well-drained soil in full sun to part shade. Tolerant of a wide range of soils, but prefers moist, slightly acid conditions. Very cold hardy. Watch for aphids, leafhoppers, borers, scale and caterpillars. Verticillium wilt attacks the vascular system and can be fatal. Canker, fungal leaf spot and root rots may also occur. Wind and ice may break some branches. Leaf hoppers can cause substantial damage.



Oregon Trail

(*Acer saccharum* 'Hiawatha 1')

45'H x 40'W

Orange-Red to Red Fall Color

This tree should only be grown in full sunlight. It prefers to grow in average to moist conditions, and shouldn't be allowed to dry out. It's not particular as to soil pH, but grows best in rich soils. Various infestations of aphids that cause aesthetic damage, and attack from some borers and beetles.



Pacific Sunset

(*Acer truncatum* x *A. platanoides* 'Pacific Sunset')

30'H x 25'W

Tints of Yellow, Red Orange Fall Color

Tolerates a wide range of soils including compacted urban sites, sand and clay. Avoid locations where water puddles and doesn't drain away. Very little pruning is needed. The worst pest are aphids, borers, caterpillars, leafhoppers, and scale. Chief disease problems are canker, fungal leaf spot (including anthracnose), rootrot, and verticillium wilt. Pest can often be eradicated by using neem oil.



Red Pointe
(*Acer rubrum* 'Frank Jr.')

45'H x 30'W

Bright Red Fall Color

During its formative years, Redpointe Maple will require weekly watering. Even as it matures your tree will still need plenty of water during the summer months. Light green leaves are a sign of over-watering, while drooping leaves can signify both over-watering and under-watering. Pest problems to Red Maples are scale insects.



Red Sunset
(*Acer rubrum* 'Red Sunset')

45'H x 35'W

Shades of Red and Orange-Red Fall Color

Easily grown in average, medium to wet, well-drained soil in full sun to part shade. Tolerant of a wide range of soils, but prefers moist, slightly acid conditions. Very cold hardy. Watch for aphids, leafhoppers, borers, scale and caterpillars. Verticillium wilt attacks the vascular system and can be fatal. Canker, fungal leaf spot and root rots may also occur. Wind and ice may break some branches. Leaf hoppers can cause substantial damage.



Sienna Glen
(*Acer x freemanii* 'Sienna')

50-60'H x 35-40'W

Golden Orange Fall Color

Requires little more than first year watering and a healthy ring to perform well in most sites. Requires less frequent pruning than the Autumn Blaze Maple. Leafhopper, scale, and other insects can feed on leaf tissues. If excessive damage is observed, or you see individual branches dying (also called Flagging), contact a certified arborist to develop a plant health management plan.



Sun Valley
(*Acer rubrum* 'Sun Valley')
20-35''H x 15-25'W
Red Fall Color

Easily grown in average, medium to wet, well-drained soil in full sun to part shade. Tolerant of a wide range of soils, but prefers moist, slightly acid conditions. Very cold hardy. Watch for aphids, leafhoppers, borers, scale and caterpillars. Verticillium wilt attacks the vascular system and can be fatal. Canker, fungal leaf spot and root rots may also occur. Wind and ice may break some branches. Leaf hoppers can cause substantial damage. Sun Valley' reportedly has good resistance to leaf hoppers.

UPRIGHT EVERGREENS



Arborvitae, Green Giant
(*Thuja plicata* x 'Green Giant')
50'H x 10'W

Best grown in moist, fertile, well-drained soils in full sun to part shade. Tolerates somewhat wide range of soils and some dry conditions. Best in full sun, but generally appreciates some light afternoon shade in hot summer climates. For screens, plant trees 5-6' apart. Plant trees further apart for other uses. No serious insect or disease problems. Bagworm and rots may occur. Watch for scale.



Cedar, Eastern Red
(*Juniperus virginiana*)
40'H x 20'W

Easily grown in average, dry to moist, well-drained soils in full sun. Tolerates a wide range of soils and growing conditions, from swamps to dry rocky glades. Prefers moist soils but is intolerant of constantly wet soils. It has the best drought resistance of any conifer native to the eastern U.S. Cedar apple rust is a common problem for many different junipers. Susceptible to twig blight and scale. Watch for bagworms. Mites may occur.



Juniper, Canaertii
(*Juniperus virginiana* 'Canaertii')
30'H x 10-15'W

Easily grown in average, dry to moist, well-drained soils in full sun. Tolerates a wide range of soils and growing conditions, from swamps to dry rocky glades. Prefers moist soils but is intolerant of constantly wet soils. It has the best drought resistance of any conifer native to the eastern U.S. Cedar apple rust is a common problem for many different junipers. Susceptible to twig blight and scale. Watch for bagworms. Mites may occur.



Juniper, Hollywood
(*Juniperus chinensis* 'Torulosa')
15'H x 10'W

Prefers the sun and has excellent heat and salt tolerance. It is pH adaptable and prefers moist, well-drained soils. Tolerates erosion and air pollution and is easily transplanted. No serious insect or disease problems. Occasional insect pests include aphids, bagworms, webworms, and scale. Junipers are generally susceptible to tip and needle blights.



Juniper, Iowa
(*Juniperus chinensis* 'Iowa')
10-20'H x 6-8'W

Iowa Juniper is easy to grow in locations that provide well-drained soils and full sun to mostly sun. Constantly soggy or wet soil can be problematic. It is a very low maintenance plant and exceptionally drought tolerant when established. Problems Leaf miners, bark beetles, scale insects, aphids, mites, and caterpillars. Phomopsis twig blight, Gymnosporangium (cedar-apple) rust, dieback and canker, lesion nematodes, brown felt blight, and various heart and wood rots.



Juniper, Perfectia
(*Juniperus chinensis* 'Perfecta')
15-18'H x 6-8'W

Easily grown in average, medium moisture, well-drained soils in full sun. Tolerant of a wide variety of soils including clay. Intolerant of wet soils. Tolerant of some drought once established. Also tolerant of many city air pollutants. Junipers are generally susceptible to tip and needle blights. Cedar-apple rust and related rust diseases spend part of their life cycle on junipers. Root rot may occur, particularly in wet, poorly drained soils. Canker may attack bark or main stems. Occasional insect pests include aphids, bagworms, webworms and scale.



Juniper, Taylor
(*Juniperus virginiana* 'Taylor')
15-20'H x 3-5'W

Easily grown in average, dry to moist, well-drained soils in full sun. Tolerates a wide range of soils and growing conditions, from swamps to dry rocky glades. Prefers moist soils but is intolerant of constantly wet soils. It has the best drought resistance of any conifer native to the eastern U.S. Cedar apple rust is a common problem for many different junipers. Susceptible to twig blight and scale. Watch for bagworms. Mites may occur.



Pine, Vanderwolf
(*Pinus flexilis* 'Vanderwolf's Pyramid')
20-25'H x 10-15'W

Grow in average, medium moisture, well-drained soils in full sun. Best grown in moist, well-drained soils, however species plants are rather adaptable, often being found growing in high alpine areas in the wild in dry, rocky soils. It forms a large taproot and is difficult to transplant once established in the landscape. Limber pine is generally considered to be an adaptable, low-maintenance tree with few problems. It is susceptible to certain rots and blights, but its most dangerous enemy is white pine blister rust which is a bark disease that is usually fatal. Aphids, weevils, spider mites and scale may appear.



Pine, White
(*Pinus strobus*)
70'H x 30'W

Easily grown in acidic, medium moisture, well-drained soil in full sun. Prefers fertile soils and cool, humid climates. Intolerant of compacted, clayey soils, alkaline conditions, and many air pollutants such as sulfur dioxide and ozone. In cool summer locations, white pine can grow quite well. It is, however, susceptible to a large number of insect and disease problems. Blights and rusts are the main diseases, with its most dangerous enemy being white pine blister rust which is a bark disease that is usually fatal. Additional disease problems of significance include canker. Insect problems include white pine weevil, bark beetles, white pine shoot borer, Zimmerman moth larvae, pine awfly, scale and aphids. Spider mites are occasional visitors in some areas.



Spruce, Black Hills
(*Picea glauca* 'Densata')
40'H x 15-25'W

Best grown in moist, well-drained soils in full sun. Performs best in cold winter climates with cool summers. It typically grows rather slowly in a dense, symmetrical cone. Starts out a green color and then turns into a blue-green tone. Great evergreen for wildlife. Mites, aphids, and bagworms are the most common pest with Black Hills spruce, though none should be able to do enough damage to a healthy tree to kill it. Bagworms are the most obvious pest and can be unsightly. Remove those within reach by hand and treat the tree with *Bacillus thuringiensis*.



Spruce, Blue Iseli Upright
(*Picea pungens* 'Iseli fastigiata')
15'H x 4'W

Prefers humus-rich, slightly acidic, well-drained soils. Water deeply, regularly in first few growing seasons to establish an extensive root system. Once established, prefers consistent moisture but can tolerate periodic drought; avoid soggy soils. Fertilize before new growth begins in spring. Susceptible to needle cast, rust, and cytospora canker. Watch for aphids, scale, bagworms and budworms. Spider mites infestations can severally damage new growth.



Spruce, Blue Totem
(*Picea pungens* 'Blue Totem')
10-15'H x 4-5'W

This tree does best in full sun to partial shade. It is very adaptable to both dry and moist growing conditions, but will not tolerate any standing water. It is considered to be drought-tolerant, and thus makes an ideal choice for xeriscaping or the moisture-conserving landscape. There are 3 principle types of diseases that affect blue spruce trees: needlecasts, tip blights and canker diseases.



Spruce, Norway
(*Picea abies*)
60'H x 25'W

Easily grown in average, acidic, evenly moist, well-drained soils in full sun. Performs well in rich sandy soils. Prefers cool summer climates, and often grows poorly south of USDA Zone 7. Established plants have some tolerance for dryish soils. *Cytospora* canker, wood decay, needle cast and rust may occur. Watch for aphids, bagworms, budworms and borers. Red spider mites can be troublesome.

Tree Farm Shrubs



Euonymus, Burning Bush
(4-6'H x 6-8'W)
Dark Green Foliage with Red to Burgundy Fall Color

Tolerates close to full shade, but usually at the expense of diminished fall color quality. Plants appreciate consistent moisture, particularly when grown in full sun locations. No serious insect or disease problems. Twig blight may occur, particularly in wet soil conditions. Watch for spider mites.