

FALL COLOR IN THE LANDSCAPE

Adding seasonal interest to your yard

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What makes Fall Color?

- In the summer, leaves are green because of chlorophyll.
- Leaves manufacture simple sugars from water and carbon dioxide, using energy captured from the sun by chlorophyll (photosynthesis).
- These sugars are the sole source of carbohydrates needed for a tree's growth and development.
- During the food-making process, chlorophylls break down and are continuously "used up".
- The tree replenishes them all through the growing season.
- As long as replacement remains high, the leaves stay green.
- As fall approaches, influences inside and outside of the plant cause chlorophylls to be replaced at a slower rate.
- Shorter days cause a layer of cork cells to form at the base of each leaf, gradually closing off the flow of water and minerals to the leaf.
- As the supply of chlorophylls dwindles, other pigments that may have been present in the leaf all along are slowly unmasked and begin to show through.
- Carotenoids (found in the leaf cells) are responsible for the brilliant yellows and oranges.
- Anthocyanins are responsible for the reds, purples and blended combinations of these colors.
- Unlike carotenoids, these pigments have not been present in the leaves all season. They develop in late summer in the sap of the leaf cells.
- Their formation depends on the breakdown of sugars in the presence of bright light while the phosphate in the leaf is reduced.
- Phosphate is at a high level during the growing season, but moves out of the leaf and into the stem in the fall.
- When this happens, the sugar breakdown process changes, leading to the production of anthocyanin pigments.
- The brighter the light, the more anthocyanins, and the more brilliant the fall color.
- Plants growing in shade do not typically produce the brilliant colors seen when growing in full sun.
- Plants in poor health or stressed usually change color earlier than healthy plants.
- The "best" fall colors occur during the shortening days of autumn when days are bright, sunny and cool, nights are cool but not below freezing, and there has been adequate rainfall.

LEAVES

YELLOW

Ginkgo (*Ginkgo biloba*)

- Unique tree with fan-shaped leaves and an outstanding golden-yellow fall color.
- This tree lived during the age of the dinosaur, 150-200 million years ago - insect and disease free.
- Look for male cultivars, as female trees produce a messy, foul smelling fruit.
- 50' height, 20' spread



Kentucky Coffeetree (*Gymnocladus dioicus*)

- Open, spreading shape with bluish-green foliage turning yellow in the fall.
- Leaves are bi-pinnately compound, with many small leaflets making up a leaf 3 feet long.
- Female plants produce large seed pods.
- 60' height, 50' spread



Goldenrain Tree (*Koelreuteria paniculata*)

- Unusual tree with attractive compound leaves.
- Clusters of yellow flowers in early summer; fall color ranges from yellow to yellow-orange.
- Yellow-green pods look like Chinese lanterns.
- 30' height, 25' spread



European Larch (*Larix decidua*)

- One of three deciduous conifers that grow in the US.
- Soft green needles sprout in clusters along the stems, turn golden yellow before dropping in the fall.
- Pyramidal shape with horizontal branches – makes a great single specimen tree.
- 60' height, 25' spread

New Mexico Privet (*Forestiera neomexicana*)

- A native large shrub/tree that is fast growing - great for hedges and screens.
- Whitish bark accentuates the bright yellow fall color.
- Female plants produce large quantities of blue-black berries.
- 8' height, 6' spread



ORANGE

Fall Fiesta Sugar Maple (*Acer saccharum* 'Bailsta')

- A sturdy and vigorous sugar maple with a dense canopy of deep green leaves in summer.
- Good resistance to leaf scorch and Japanese Beetle, excellent winter hardiness.
- Outstanding fiery blend of orange, red and yellow foliage in the fall.
- 50' height, 40' spread

Shadblow Serviceberry (*Amelanchier canadensis*)

- Attractive small tree-form has reliable white flowers that appear in April before the leaves.
- Edible berries are very attractive to birds.
- Works great in naturalized or native plant gardens.
- 10' – 15' height, 10' spread



Pink Flair Cherry (*Prunus sargentii* 'JFS-KW58')

- Showy masses of single pink flower clusters are followed by dark green leaves.
- Develops small fruit that ripen to a dark purple in summer. Fall foliage is bright orange-red.
- Blooms later than most cherries, avoiding frost damage.
- Narrow upright form is excellent for small spaces. Lustrous bark is an attractive reddish brown.
- 12' height and spread

Autumn Amber Sumac (*Rhus trilobata* 'Autumn Amber')

- This creeping three leaf sumac makes an outstanding groundcover.
- Tolerant of our alkaline soils and very drought resistant – tough enough for harsh planting sites.
- A 2014 Plant Select[®] introduction, glossy green leaves change to amber and orange in fall.
- 18" height, 6' - 8' spread



RED

Bigtooth Maple (*Acer grandidentatum*)



- Outstanding Rocky Mountain native, this slow growing maple thrives in alkaline soils.
- The deeply lobed green summer leaves turn to varied hues of yellow, orange and bright red.
- This tree is closely related to sugar maple, and has been used as a source of sugar and syrup.
- 25' – 30' height, 25' spread

Flame Ginnala Maple (*Acer tartaricum* subsp. *Ginnala* 'Flame')

- An improved variety of Ginnala Maple with a more consistent fall color.
- Can be grown as a single stem or a clump form – an excellent selection for small spaces.
- Has a more uniform branching habit, with fall color of brilliant orange-red to deep red.
- 20' height, 20' spread

Northern Red Oak (*Quercus rubra*)



- A fast growing oak with broad spreading branches and a round crown.
- Leaves turn from glossy green to dark red, then ruddy brown and orange in the fall.
- Native to the Midwest and tolerant of salt and air pollution – great tree for exposed areas.
- 50' height, 30' spread

Creeping Oregon Grape Holly (*Mahonia repens*)



- This native evergreen groundcover with holly-like leaves does well in shade gardens.
- Bright yellow flowers in May followed by blue-black fruit clusters.
- Leaves turn shades of red in the fall and remain until new growth in the spring.
- 12" to 18" height and spread

PURPLE

Venus Dogwood (*Cornus* 'Kn30 8' Venus)

- Large 6" creamy white flowers in late spring last until early summer.
- Vigorous disease-resistant ornamental with a purple-red fall color and excellent winter hardiness.
- Summer flowers produce an attractive strawberry-like fruit.
- 20' height, 20' spread

Sweetgum (*Liquidambar styraciflua*)

- Interesting star-shaped leaves on a compact crown make this an attractive shade tree.
- Easy to identify spiny "gumballs", 1 to 1 ½ inches in diameter mature in fall.
- The glossy green leaves turn beautiful shades of purple mixed with yellow, orange and red.
- 30-50' height, 30' spread



Arrowwood Viburnum (*Viburnum dentatum*)

- Large, dense shrub gets its name from the arrow straight upright branches.
- White flower clusters in June, followed by blue-black berries.
- Deeply veined leaves have a saw tooth margin - fall color is purple with reds and oranges.
- 12' height, 9' spread

American Cranberry Viburnum (*Viburnum trilobum*)

- Hardy shrub with rich green lobed leaves.
- Large sterile white flowers surround smaller yellow-white fertile flowers, producing scarlet fruit in fall.
- Deep purple-red fall color.
- 10' height, 6' spread

FRUIT

Winter King Hawthorn (*Crataegus viridis* 'Winter King')

- This small tree has very few thorns and shiny green leaves turning purple to scarlet in the fall.
- Clusters of white flowers 2" across in early spring.
- Small, bright red fruit persists throughout the winter. Silver-gray bark exfoliates with age.
- 30' height, 20' spread



Golden Raindrops Crab® (*Malus transitoria* 'Schmidcutleaf' Golden Raindrops®)

- Finely textured, deeply cut foliage gives this crab a delicate appearance.
- Slender limbs spread horizontally from upright branches, with the form being vase shaped.
- White flowers in spring produce abundant small golden yellow fruit.
- 20' height, 15' spread



Kinnikinnick/Bearberry (*Arctostaphylos uva-ursi*)

- A trailing evergreen groundcover shrub with glossy green, paddle-shaped leaves.
- Clusters of small, bell-shaped pink to white flowers occur on bright red stems in May.
- Bright red berries follow the flowers and persist into winter. Berries are indeed eaten by bears.
- 4-6" height, 5'-6' spread



Cranberry Cotoneaster (*Cotoneaster apiculatus*)

- A medium size, deciduous shrub with shiny green foliage.
- Spring flowers are small and pinkish white.
- Cranberry-sized red berries appear in summer and persist through the winter.
- 3' height, 4' spread

Pawnee Buttes Sand Cherry (*Prunus besseyi* 'Pawnee Buttes')

- A Plant Select® introduction in 2000, it was discovered near Pawnee Buttes in Weld County, CO.
- This groundcover shrub has fragrant white flowers that turn into black berries.
- Lush green leaves change to brilliant shades of purple and red in the fall.
- 15-18" height, 6' spread



Yukon Belle® Pyracantha (*Pyracantha angustifolia* 'Monon')

- An upright spreading shrub with abundant white blooms in spring followed by orange berries.
- The hardiest variety of Pyracantha (to -30 degrees), it prefers partial sun to full shade.
- Thorny branches makes this an excellent security barrier against intruders or large animals.
- 6-10' height, 6-8' spread

Blue Muffin® Arrowwood Viburnum (*Viburnum dentatum* 'Christom')

- A compact Arrowwood Viburnum grown for its stunning summer through fall fruit display.
- The plant is blanketed in flat white flower clusters in spring.
- Intensely blue berries appear in summer, thickly covering the plant.
- 6' height, 6' spread

Wayfaring Viburnum (*Viburnum lantana*)

- Upright rounded shrub with flat heads of white flowers in the spring.
- Fruit appears shortly after bloom, starting off pink, changing to red and finally black in the fall.
- Dark green fuzzy foliage turns an outstanding deep purple-maroon in the fall.
- 10' height, 6' spread



American Cranberry Viburnum (*Viburnum trilobum*)

- Hardy shrub with rich green lobed leaves.
- Large sterile white flowers surround smaller yellow-white fertile flowers, producing red fruit in fall.
- Deep purple-red fall color.
- 10' height, 6' spread

BARK

Paperbark Maple (*Acer griseum*)

- A small deciduous tree noted for its exfoliating copper orange to cinnamon red bark.
- Leaves are green above, but frosty blue-green to gray-green with fine hairs beneath.
- Fall color ranges from showy shades of orange and red to less spectacular reddish green to bronze.
- 20' height, 15' spread

Heritage River Birch (*Betula nigra* 'Cully')

- White trunk exfoliates, showing patches of tan, salmon and cherry colored bark underneath.
- Graceful pyramidal crown of large green leaves that turn yellow in the fall.
- Adapts well to heavy clay soils, wet and dry conditions and is resistant to Bronze Birch Borer.
- 40' height, 30' spread

Winter King Hawthorn (*Crataegus viridis* 'Winter King')

- This small tree has very few thorns and shiny green leaves turning purple to scarlet in the fall.
- Clusters of white flowers 2" across in early spring.
- Small, bright red fruit persists throughout the winter. Silver-gray bark exfoliates with age.
- 30' height, 20' spread



London Planetree (*Platanus x acerifolia* 'Bloodgood')

- A large tree that is very tolerant of city conditions (pollution, parking lots).
- Leaves are light green, turning to yellow in the fall.
- Bark is mottled and flaking, resembling dragon scales in shades of olive green, tan and brown.
- 60' + height, 35' spread

Lacebark Pine (*Pinus bungeana*)

- An upright, fragrant conifer with dark green needles.
- The bark develops exfoliating patches of white, green and brown as it ages.
- Mature size is highly dependent on cultural conditions due to its slow rate of growth.
- 30' height, 20' spread

Scotch Pine (*Pinus sylvestris*)

- Also called Scots Pine, this medium sized evergreen is dense when young, more open with age.
- The bark is orange brown and peeling – it is enjoyed by porcupines, which can damage the tree.
- One of the most popular Christmas trees, it accounts for 30% of trees grown for that purpose.
- 30-50' height, 25-40' spread

Arctic Fire™ Dogwood (*Cornus stolonifera* 'Farrow')

- This compact selection has dark red stems that provide a spectacular show in the winter sunlight.
- The best red color appears on one and two year old stems; older stems will turn corky and brown.
- Full sun to partial shade, tolerant of a wide range of soils.
- 30' height, 25' spread



PERENNIALS

Plumbago/Leadwort (*Ceratostigma plumbaginoides*)

- Deep green leaves in spring turning bright red in fall.
- Blue flowers from June – October create a truly unique fall color experience.
- 8-12" height, 12-24" spread

Garden Mums (*Chrysanthemum* hyb.)

- Showy color, September – October, when little else is in bloom.
- Blooms last for weeks, and are available in a variety of colors, including pink, orange and yellow.
- 9-18" height, 24-36" spread

Purple Coneflower (*Echinacea purpurea*)

- Large, daisy-shaped purple blooms July through September.
- Many colorful cultivars are available in shades of red, white, orange, yellow and cream.
- 30-36" height, 18-24" spread



Blanket Flower (*Gaillardia aristata*)

- A hardy, drought tolerant perennial found throughout much of the United States.
- Daisy-like flowers are produced early summer to fall in shades of red, orange, yellow and peach.
- 9-12" height, 24" spread



Black-Eyed Susan (*Rudbeckia fulgida* 'Goldsturm')

- Perennial of the Year for 1999, this coneflower has large, daisy-like flowers (3 to 4" across).
- Deep yellow flowers with a dark brownish-black center appear July – October.
- 30-36" height, 16-24" spread



Autumn Joy Sedum (*Sedum spectabile* 'Autumn Joy')

- Flowers appear in August and last into late October/early November.
- Large, broccoli-like green buds turn to red or pink and mature to a bronzy-red color.
- 18-36" height, 18-24" spread



ORNAMENTAL GRASSES

Feather Reed Grass (*Calamagrostis arundinacea* 'Karl Foerster')

- 2001 Perennial of the Year.
- Green grass with pinkish feathery blooms in spring that mature to gold in summer.
- 4-5' height, 2-4' spread



Hardy Pampas Grass/Plume Grass (*Erianthus ravennae*)

- Tall, showy flower plumes in late summer - great for dry flower arrangements.
- Must have the room for this plant, as it does get BIG!
- 12' height, 5' spread



Blue Fescue (*Festuca glauca* 'Elijah Blue')

- Powder blue leaves hold their color all year round.
- Plants form spiky mounds with 18" tall flower spikes in June, going from blue-green to a buff color.
- 8-12" height, 8-12" spread



Blood Grass (*Imperata cylindrica* 'Rubra')

- Striking blood-red foliage has the best color in full sun with ample water.
- In warmer climates this grass is invasive – it is banned in much of the southeastern United States.
- 1-2' height, 2-3' spread



Heavy Metal Switch Grass (*Panicum virgatum* 'Heavy Metal')

- This stiffly upright switch grass cultivar has metallic blue foliage with a waxy white bloom.
- It turns bright yellow in fall and displays pink to burgundy seed heads that gradually age to beige.
- 3-4' height, 12-18" spread



Dwarf Fountain Grass (*Pennisetum alopecuroides* 'Hameln')

- This showy, clump forming grass is very drought tolerant.
- Long, slender blades produce plumes of creamy white flowers which "shatter" with the first freeze.
- 2-3' height, 2' spread



"The true meaning of life is to plant trees, whose shade you do not expect to sit"

- Nelson Henderson

"Except for the nine months before he draws his first breath, no man manages his affairs as well as a tree does"

- George Bernard Shaw

"A Street without a tree is just a St."

- Anonymous