

Fall Color in Your Garden

Late September - Saturday

“Choose trees, shrubs, and perennials and even bulbs with the most colorful leaves, persistent berries or super-late blooms. Ever wonder which weather conditions create the best fall display? Why are some Aspen nearly red? Help your plants yield the richest golds and the deepest reds.” Samples provided.

Fall colors include foliage, stems, fruits and still a few flowers. There are beautiful perennials and annuals which will continue to give us colorful blooms for many more weeks. Some bulbs like autumn crocus, are fall blooming as well. Fall foliage colors are plants' displays that begin with the ending of summer. In autumn the sun passes lower in the sky every day. When traveling through more atmosphere, red, orange and yellow are more prominent components of the autumn sunlight we see. We're surrounded by tones of yellow, orange, pink, peach, rust and red from the plants as well. Plants like dogwood and river birch produce nearly purple leaves each fall.

The Biology of Fall Color

Chlorophyll is the green of plants and it is the main pigment responsible for photosynthesis (light energy to chemical energy). As days shorten, nights cool and plants dry, photosynthesis decreases and spent chlorophyll is not replaced. As the green of chlorophyll fades, other pigments that were previously masked begin to show. Carotenoides, tannins and anthocyanins are some of the other major pigments found in deciduous leaves.

All leaves contain carotenoides that help transfer light energy to chlorophyll. Carotenoides are responsible for the golden yellow of aspen, Norway maple, willow and birch.

Anthocyanins are in plants with purple and red flowers and plants with purple and reddish foliage. Most of these show off in brighter red fall colors as well. Anthocyanins create colors ranging from pink to deep purple. Often, the more light a plant receives, the deeper its fall colors will be. Vine maple, big-tooth maple, mountain ash, serviceberry and red-twig dogwood all grow well in moderate shade and still give us intense orange-red through purple fall colors. Orange leaves are a combination of anthocyanins and carotenoides.

When chlorophyll, carotenoides and anthocyanin are gone and the leaf turns brown, tannin is responsible. Tannin gives us the translucent cream, beige, tan and brown of autumn. Tannin is contained in all leaves in varying amounts. Some trees such as Bur Oak and many grasses have high concentrations of tannin and their leaves turn amber in fall.

Causes of colors

While the genetics of plants determine which colors the plant can display, there are also other factors. Weather likely plays the most important external role in determining the intensity of fall colors. Dry conditions in late summer or poor soils limit production of chlorophyll and hasten the transition. Ideal conditions for the best fall colors start with a couple of early September frosts followed by warm sunny autumn days and cool (not quite freezing) nights for a long “Indian Summer”. Without hard frosts some photosynthesis can continue to produce sugars that are used to make anthocyanins. Weather can also ruin fall colors. Hard frosts will turn the leaves brown and cloudy, rainy days inhibit the color because of the lack of light and warmth.

It is said that a more acidic soil makes redder leaves and a more alkaline soil makes more purplish leaves. To acidify soil, add cottonseed meal or iron sulfate. To raise the pH of soil and decrease acidity, add lime or wood ashes.

What you can do.

Begin cutting back on watering by late August to let plants know it is time to prepare for winter. Plants need to close-up on top to avoid winter damage. It is not bad to see your plants occasionally wilt a little but do not let them dry out completely. After fall color begins in earnest, up the watering just a little so the fall root growth can be maximized.

Fall pruning, after dormancy, is not recommended unless a branch is in imminent danger of being ripped off by snow (or if a plant is excessively vigorous). If the plant is still green, into early September, the woody plant should have enough time to seal the cut before the cold / dry winter. Pruning is best done in late winter / early spring or during the growing season.

Fall Color to see:

Pear on High st. corner of Spring. Lilac (actually has purple fall color some years) corner of Church and Donner Pass Rd. - (don't prune lilac after June), Tansy, Nova-belgii (New York) aster – (add calcium and pinch in June to help stems stand-up). See Juniper, Arctostaphylos, Oregon grape, Thimbleberry at Gray's cabin. The C.B.Whitehouse has red oaks and hawthorne berries. The Eaton House has several Bigtooth Maples. The Library has Vine Maple, Spiraea and Crabapple. The Hospital MOB has Golden Currant. the Post Office (1984) has Maples: (Red, Norway, Big-tooth, Amur), Serviceberry, Nine-bark, Red-twig Dogwood, Golden currant, Sumac, Russian olive. Bank of the West has Dwarf purple willow, Hawthorne, Yarrow, Wild Strawberry. Crabapple, Daylily, Mt.Ash-tree to shrub. Dragon's blood sedum, Vinca and Amur Maple.

Brickletown has cranberry bushes, oak, Bechtel / Brandywine crabapples, apples and more. The sheriff's office, Truckee Physical Therapy and, of course, the Villager has some excellent examples of fall colors.

Plants for Fall Color

Flowering Trees

Malus ioensis cv.	Brandywine or Bechtel Crabapples	20'	huge leaves, spectacular red fall colors.
Malus species	Apples and Crabapples	15-25'	golden-orange fall colors, winter fruit display
Prunus cistena 'Big Cis'	Sand Cherry Tree	8-15'	intense purple summer leaf, red fall leaf color
Prunus persica	Peach	10-15'	nor fruit but spring bloom and fall colors
Prunus virginiana cv.	Standard-form Chokecherry	15-25'	intense red-orange-violet fall colors. Fast growing

Aggressive Deciduous Trees

Populus tremula 'erecta'	Columnar Swedish aspen	40-60'	red fall color, dense upright habit
Populus tremuloides	Quaking aspen	40-80'	golden fall color, white noise (quaking)

Understory Trees, Very Large Shrubs, "Trubs"

Acer campestre	Hedge Maple	20-40'	very dense screen with pruning, golden fall color
Acer circinatum	Vine Maple	15-25'	great bark, rainbow of fall colors, part shade
Acer ginnala	Amur Maple	8-15'	'Flame' is its fall color. tolerates extreme cold
Acer glabrum	Mt. maple	8-20'	open, delicate, pale yellow, cream fall color
Acer grandidentatum	Rocky Mt. Bigtooth Maple	12-30'	best as multi-trunk, great fall colors -All colors
Amelanchier species	Serviceberry	6-15'	species with bright red-orange fall colors
Betula occidentalis	Western Water Birch	15-30'	copper bark, yellow-maroon fall colors
Cornus sericea	Red-twig dogwood	8-15'	fast growing, shade tol., red fall color and stems
Crataegus species	Hawthorne	8-10'	some grown as shrubs, like mt. Ash
Malus 'Sergeant'	Sergeant's Crabapple	6-10'	profusion of bright red fruit in late fall - winter
Pinus mugo 'pumilo'	Mugo pine	8-15'	like a shrubby lodgepole pine in almost every way
Prunus virginiana cv.	Chokecherry	15-30'	excellent jam, great fall color, massive shrub
Pyrus species	Pear	15-25'	red fall color very late, needs protected location
Sorbus aucuparia (M.S.)	Multi Stem European Mt. Ash	20-30'	multi trunk in part shade, flowers, berries, fall color
Sorbus scopulina	Western Mt. Ash	4-12'	native, more open than European Mt. Ash
Quercus gambellii	Gambell Oak	10-20'	"Magic Carpet" fall colors from high elevation

Large shrub ~ 5-10'

Aronia melanocarpa	Black chokeberry	4-6'	deep green leaves, bright red fall color
P. opulifolius 'Dart's Gold'	Dwf. Golden Ninebark	3'	clear golden foliage, soft cream fall color
Prunus cistena	Sand Cherry	5-8'	intense purple/red leaf color - hot pink fall color
Ribes aureum	Golden currant	4-8'	Yellow blooms, big black fruit, bright red fall color
Rhus trilobata	Squawbush	4-8'	Rainbow of fall colors. looks like poison oak
Rhus typhina	Staghorn Sumac	4-6'	Spreading clumps, RED fall color
Rosa glauca	Red-leaf rose	5-8'	great purple leaves, bright orange hips
Spiraea douglasii	Western spirea	4-6'	unique late flower spikes, bright orange fall colors
Viburnum dentatum	Arrowwood	5-8'	big blooms, great fall colors, bright persistent fruit
Viburnum trilobum	Cranberry bush	4-8'	big blooms, great fall colors, bright persistent fruit

Small shrub < 5'

Artemisia tridentata	Basin sagebrush	2-3'	dry land, silvery native beautiful with fall grasses
Berberis thunbergii	Crimson Barberry	2-3'	spring prune for summer color, ORANGE in fall
Chrysothamnus nauseosus	Rabbit brush	2-3'	awesome fall yellow bloom, silver foliage
Euonomus alata 'compacta'	Dwf. Buring Bush	3-4'	fluorescent magenta fall color - "Burning Bush"
Holodiscus discolor	Rock spray	3-5'	great native shrub with large white plumes
Mahonia repens	Dwf. Oregon grape	6"-1'	part shade; semi-evergreen, bright red fall splashes
Picea abies 'nidiformis'	Nest Spruce	1-1.5'	finer than Mugo pine - keeps the garden "alive"
Pinus mugo 'compacta'	Dwarf Mugo pine	2-4'	like a really dwarf lodgepole pine
Potentilla fruticosa	Bush cinquefoil	2-4'	blooms all summer and well into the fall, blooming.
Ribes roezlii	Gooseberry	1-2'	bright red fall berries and leaves
Rosa rugosa 'Hansa'	Hansa Tomato rose	3-5'	the hardiest rose in Truckee. Large red hips in fall
Rosa woodsii	Wild rose	3-6'	bold red hips amid orange fall
Spiraea bumalda 'Goldflame'	Goldflame spiraea	2-3'	golden foliage, pink blooms, red fall color
Spiraea densiflora	Mt. Pink Spirea	1-2'	beautiful next to granite boulders or ponds, native
Spiraea betulifolia	Western white spirea	2-3'	red-orange fall color, white blooms
Spiraea nipponica 'Snowmound'	Snowmound spirea	3-5'	big easy shrub with a profusion of white in spring
Syringa meyeri	Dwarf lilac	4-5'	for a small space, deep purple fall color
Vaccinium angustifolium	Hardy Mid-High Blueberry	2-4'	excellent fruiting low shrub with magenta fall color
Viburnum trilobum 'Compactum'	Dwarf cranberry bush	3-4'	dwarf of the big-one - berries and red fall color

Woody Groundcovers

Arctostaphylos uva-ursi	Bear-berry manzanita	2-4"	glossy red berries in fall
Cotoneaster dameri 'eicholtz'	Bear-berry cotoneaster	4-8"	red berries and spotted intense red fall foliage
Juniperus communis	Alpine carpet juniper (native)	4" - 2'	native creeping tough juniper purplish fall color
Mahonia repens	Creeping Mahonia	6" - 1'	bright red on some of the leaves in fall
Symphoricarpos mollis	Creeping snowberry	4-8"	big white berries in the fall

Perennial Fall Blooms

Achillea filipendulina	Yarrow, Golden
Aconitum carmichaelii	Autumn Monkshood
Alcea rosea	Hollyhock
Anemone japonica	Japanese Anemone
Anemone sylvestris	Snowdrop Anemone
Anemone tuberosa	
Aster nova-angliae	Aster, New England
Aster nova-belgii	Aster, New York
Campanula persicifolia	Peach Leaf Bellflower
Campanula takesimana	Korean Bellflower
Choeone	Turtlehead
Clematis tangutica	Goldenbells Clematis
Colchicum	Autumn Crocus
Crucis stauvus	Saffron
Digitalis purpurea	Foxglove
Echinaceae purpurea	Purple Coneflower
Fragaria x 'Lipstick'	Red Flowering Strawberry
Geum chiloense	Chilean Geum
Helianthus tuberosus	Jerusalem Artichoke
Lewisia cotyledon	Lewisia
Liatris spicata	Gayfeather
Lilium tigrinum	"Tiger Lily"
Lychnis coronaria	Rose Campion
Monarda didyma	Bee Balm
Nepeta siberica	Catmint, Siberian
Oenothera missouriensis	Sundrops Oenothera
Phlox paniculata	Summer Phlox
Phygelius x rectus	Cape Fuchsia
Physostegia virginiana	Obedient Plant
Primula x polyantha	English Primrose Hybrids
Rosa sp.	Roses, Rugosa and Miniatures (still in full bloom)
Rudbeckia fulgida	'Goldsturm' (Gold storm) Rudbeckia
Rudbeckia hirta	Black-Eyed Susan
Rudbeckia laciniata	Lace-leaved Rudbeckia
Rudbeckia nitida	'Herbstsonne' (Autumn Sun) Rudbeckia
Sedum spectabile	Sedum, Autumn Joy
Tanacetum vulgare	Tansy
Zauschneria californica	(Epilobium canun) California Fuchsia

Perennial Fall Foliage Color

Artemisia schmidtiana	Silver Mound / Angel's Hair
Bergenia cordifolia	
Dicentra spectabilis	Showy Bleeding Heart
Eryngium gigantea	Sea Holly
Fragaria spp.	Strawberry
Geranium spp.	Hardy Geranium
Hosta	Funkia, Plantain Lily
Scabiosa fama	Scabiosa

And many, Many more!!!!