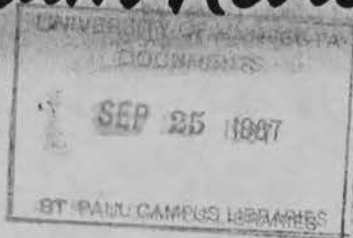


# Arboretum Review



ARBORETUM REVIEW NO. 27-1975  
LEON C. SNYDER



## Plants for Fall Color



Sugar Maple



Winged Euonymus

We are indeed fortunate to live where brilliant autumn coloration of foliage occurs. Fall coloration occurs only in limited areas in the northern hemisphere where there is a combination of clear sunny days and cool nights in September and early October. In the United States, this area extends across the northern states and Canada from the Atlantic Ocean to the Great Plains. A few isolated areas in the mountains also develop good color. There is also a large area in eastern Asia, including northern Japan and parts of Korea.

Fall colors are usually some shade of yellow or red. The yellow colors are due to two pigments: carotene; and xanthophyll. These are present in the leaf during the summer, but are masked by the green chlorophylls. During cool weather in the fall, the green pigments break down faster than they are synthesized, leaving the more stable yellow pigments.

Most of the reds are anthocyanin pigments that are synthesized from excess sugars accumulating in the leaf. Bright, sunny days favor photosynthesis and sugar formation. In au-

turn, development of the abscission layer at the base of the petiole prevents these sugars from being translocated to other parts of the plant. This explains why sunny days and cool nights are so important for brilliant fall colors. The purple pigments in some oaks and other plants may be, in part, due to tannins.

Two other factors may be involved. Soil certainly plays a role. Plants growing on rich, prairie soils seldom develop the same degree of color as do plants growing on less fertile forest soils. Iron in the soil also seems to produce more brilliant reds.

The other factor is a plant's genetic makeup. Some plants, such as the common lilac, drop its leaves while they are still green. Even within the same species, individual plants perform differently on the same soil type. In both sugar and red maples, leaf color can vary from yellow to red, with intermediate shades of orange.

Since most plants listed in this review are also covered in other reviews, performance records are omitted. Plants are listed alphabetically and classified to size and fall foliage color.

Scientific name	Common name	Plant type	Fall color
<i>Acer ginnala</i>	Amur Maple	Shrub or tree	Yellow to red
<i>Acer nigrum</i>	Black Maple	Large tree	Yellow to red
<i>Acer Platanoides</i>	Norway Maple	Large tree	Yellow
<i>Acer rubrum</i>	Red Maple	Large tree	Yellow to red
<i>Acer saccharum</i>	Sugar Maple	Large tree	Yellow to red
<i>Acer saccharinum</i>	Silver Maple	Large Tree	Yellow
<i>Acer spicatum</i>	Mountain Maple	Shrub or tree	Orange to red
<i>Acer tataricum</i>	Tatarian Maple	Shrub or tree	Yellow to red
<i>Aesculus spp.</i>	Buckeyes	Tree	Yellow to red
<i>Amelanchier spp.</i>	Juneberries	Shrub or tree	Yellow to red
<i>Aronia arbutifolia</i>	Red Chokeberry	Medium shrub	Red
<i>Aronia melanocarpa</i>	Black Chokeberry	Medium shrub	Red
<i>Aronia prunifolia</i>	Purple Chokeberry	Medium shrub	Red
<i>Berberis koreana</i>	Korean Barberry	Medium shrub	Red to purple
<i>Berberis thunbergi</i>	Japanese Barberry	Low shrub	Red
<i>Betula spp.</i>	Birches	Medium tree	Yellow
<i>Carpinus caroliniana</i>	American Hornbeam	Shrub or tree vine	Orange to red
<i>Celastrus loesneri</i>	Chinese Bittersweet	Vine	Yellow

(Continued on opposite page)

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Current information available from University of Minnesota Extension: <http://www.extension.umn.edu>

Scientific name	Common name	Plant type	Fall color
<i>Celastrus scandens</i>	American Bittersweet	Vine	Yellow
<i>Cercis canadensis</i>	Eastern Redbud	Small tree	Yellow
<i>Cladrastis lutea</i>	Yellowwood	Medium tree	Yellow
<i>Cornua alba sibirica</i>	Siberian Dogwood	Tall shrub	Red
<i>Cornus racemosa</i>	Gray Dogwood	Tall shrub	Red to purple
<i>Cornus stolonifera</i>	Redosier Dogwood	Tall shrub	Red
<i>Cotoneaster apiculata</i>	Cranberry Cotoneaster	Low shrub	Red
<i>Cotoneaster divaricata</i>	Spreading Cotoneaster	Medium shrub	Red
<i>Dircus palustris</i>	Atlantic Leatherwood	Medium shrub	Yellow
<i>Euonymus alatus</i>	Winged Euonymus	Tall shrub	Red
<i>Euonymus europaeus</i>	European Euonymus	Tall shrub	Red
<i>Euonymus fortunei</i> 'Coloratus'	Purpleleaf Wintercreeper	Low shrub	Purple
<i>Fagus grandifolia</i>	American Beech	Large tree	Yellow
<i>Fraxinus americana</i>	White Ash	Large tree	Purple
<i>Fraxinus pennsylvanica</i>	Green Ash	Large tree	Yellow
<i>Ginkgo biloba</i>	Ginkgo	Medium tree	Yellow
<i>Hamamelis virginiana</i>	Witchhazel	Tall shrub	Yellow
<i>Nyssa sylvatica</i>	Black Gum	Medium tree	Red
<i>Parthenocissus quinque folia</i>	Virginia Creeper	Vine	Red
<i>Parthenocissus tricuspidata</i>	Boston Ivy	Vine	Red
<i>Populus deltoides</i>	Cottonwood	Large tree	Yellow
<i>Populus tremuloides</i>	Quaking Aspen	Medium tree	Yellow
<i>Potentilla tridentata</i>	Wineleaf Potentilla	Low shrub	Red to purple
<i>Quercus alba</i>	White Oak	Large tree	Red to purple
<i>Quercus borealis</i>	Red Oak	Large tree	Red
<i>Quercus palustris</i>	Eastern Pin Oak	Large tree	Red
<i>Rhododendron calendulaceum</i>	Flame Azalea	Medium shrub	Red
<i>Rhododendron vaseyi</i>	Pinkshell Azalea	Medium shrub	Red
<i>Rhus glabra</i>	Smooth Sumac	Tall shrub	Red
<i>Rhus typhina</i>	Staghorn Sumac	Tall shrub	Red
<i>Rhus typhina</i> 'Laciniata'	Cutleaf Staghorn Sumac	Tall shrub	Yellow to red
<i>Ribes odoratum</i>	Clove Current	Medium shrub	Red
<i>Sorbus alnifolia</i>	Densehead Mountain Ash	Medium tree	Red
<i>Sorbus aucuparia</i>	European Mountain Ash	Medium tree	Red
<i>Sorbus decora</i>	Showy Mountain Ash	Medium tree	Red
<i>Syringa</i> 'Miss Kim'	Miss Kim Lilac	Medium shrub	Red to purple
<i>Vaccinium species</i>	Blueberries	Low shrub	Red
<i>Viburnum dentatum</i>	Arrowwood	Tall shrub	Red to purple
<i>Viburnum lantana</i>	Wayfaring Bush	Tall shrub	Red
<i>Viburnum lentago</i>	Nannyberry	Tall shrub	Purple to red
<i>Viburnum opulus</i>	European Highbush Cranberry	Tall shrub	Red
<i>Viburnum trilobum</i>	American Highbush Cranberry	Tall shrub	Red

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