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Autumn Tints of  
Trees and shrubs  
Frances W. Sly  
1902

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by

Frances W. Sly

1902.

## Autumn Tints of Trees and Shrubs on the Campus.

The fall of Nineteen hundred when my observations were made was a short one, the autumn colors showing almost entirely during the month of October. A very few showing color in September while some carried their color into November. My observations were made almost entirely on the College campus for here all the varieties could be found within a small enough space so that observations could be made every day.

My object was to determine the exact color of trees and shrubs, date when color first appeared, when color was full and when the leaves fall. I took the predominating color of the greater part of the leaves, for often a tree would have a few leaves of different tint but not enough to change color of tree.

I classified the trees and shrubs according to seven general classes.

1st.-- Trees and shrubs that show pure yellow ~~alone~~.

2nd.-- Trees and shrubs that show a mixture of rusty green and

yellow.

3rd.- The green of summer unchanged, or but slightly.

4th.- Trees and shrubs that show a predominance of green with more or less yellow, red and purple of different shades.

5th.- Purple, crimson and scarlet with only a little green or yellow.

6th.- Variegated with all the above colors on the same or different trees of same species.

7th.- Passing through shades of dark chocolate, brown, salmon and violet.

I found yellow to be the prevailing color among the trees with reds among the shrubs. As I made my classification there are twenty-five families represented.

The tables have the families with Latin and common names, the common names arranged in alphabetical order, the numbers at the left of the varieties indicating to which of the seven color divisions they belong, also the dates, color, Latin and common names of each variety.

The similarity of dates is due to the fact that a heavy frost would affect a number of trees, fading the colors and loosening the leaves, the strong autumnal winds would bare a tree almost in a day.

The early part of the fall the maples furnish the brilliant color, for no other tree shows as many or as vivid colors as the different species of this family. The gorgeous effect produced by the yellow, scarlet, orange and crimson lasted until the frost of the twentieth faded them and within five days the trees were bare. The different species, five days brings them all to full color and within another equal period of time the leaves of all different trees are gone.

The poplars come about the same time as the maples and all belong to class one, the leaves were imperfect because of rust spots but a perfect leaf showed a pure yellow tint in every case.

The shrubs and trees of the rose family come under five different classes but the greater number under the first and fourth. The Pulse family comes under class one, with the exception of the rose acacia which has so little yellow that it comes under class three. All of the Ashes go under class seven while the lilacs which belong to the same family go under the yellows of class one.

All of the nettle family are included under class one. In the cashew family the sumach goes under class five and the smoke tree goes under class one. The saxifrage family has four shrubs represented, each one under a different class.

The last part of the fall the oaks give the color, they lack the brightness and gayety of the maples and bushes but they are quite as beautiful in their quiet way. All of the oaks come under class six and their crimson purple and garnet with only a little yellow gives a more sombre effect. They last until the last of November, some even clinging to the tree during the winter, as if loth to leave until the green summer comes to cover its bareness. There are a number of trees of families that have only one or two represented, these usually belong to one class so I have not mentioned them. Families show different classes instead of all species belonging to one class. By far the greater number of trees come under the yellows of class one. The most beautiful colors belong to the maples and oaks of class six. Class two includes chiefly shrubs where no marked amount of colors appears, from green the leaves sear

and fall.

Autumn colors are not caused by frost but are due to natural changes. The year when the frost comes late gives the most gorgeous foliage. Frost is a destroying agent killing the color and causing the leaves to fall. Heat is another color destroyer, fading their brilliant tints. Cool weather without frost is necessary for brilliant autumnal colors.

Families Represented:

Common Name -

Common Name	Family,	Common Name	Family,
Amaryllis	Family,	Oak	Family,
Barberry	" ,	Oleaster	" ,
Birthwort	" ,	Plane tree	" ,
Birch	" ,	Pine	" ,
Cashew	" ,	Pulse	" ,
Dogwood	" ,	Rose	" ,
Guising	" ,	Staff tree	" ,
Heath	" ,	Saxifrage	" ,
Honeysuckle	" ,	Soapberry	" ,
Laurel	" ,	Tamarisk	" ,
Linden	" ,	Vine	" ,
Magnolia	" ,	Willow	" ,
Nettle	" ,	Walnut	" ,
Olive	" ,	Witch Hazel	" ,



Class 1.

Trees and shrubs that  
show pure yellow alone.

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- White Poplar
- Lombardy Poplar
- American Aspen
- Balm of Gilead Poplar
- Weeping Willow
- Shagbark Hickory
- Snowball Tree
- Common Locust
- Yellow-wood Tree
- Bladder Senna
- Honey Locust
- Red Mulberry
- Japan Mulberry
- Corky White Elm
- American Elm
- Slippery Elm
- Osage Orange
- Broad-leaved Syringa
- Flowering Currant
- Norway Maple
- American Bladder-nut
- White or Silver Maple
- Common Catalpa
- Smoke-tree
- American Beech
- Dutchman's Pipe
- Tulip Tree
- Cucumber tree
- American Linden or Basswood
- American White Birch
- Canoe or paper birch
- French Tamarisk
- Common Lilac
- Persian Lilac
- Common Meadow Sweet.
- English Hawthorn
- Choke Cherry
- Wild red Cherry
- Japan Quince
- Choke Cherry Shrub
- Flowering Almond
- Spiraea Crenata
- Spiraea Rotundifolia
- Sweet Briar

Class 2.

Trees and shrubs that  
show a mixture of rusty  
green and yellow.

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- Cottonwood
- Butternut
- Black Walnut
- Horse Chestnut
- Box Elder
- Ironwood
- Sycamore
- Buffalo Berry

Class 3.

The green of summer  
unchanged or but slightly.

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- Common Elder
- Japan Honeysuckle
- Rose Acacia
- Hydrangea
- Acer ~~Dilatatum~~
- English Ivy

Class 4.

Trees and shrubs that show  
a predominance of green with  
more or less yellow, red and  
purple of different shades.

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- Climbing Bitter-sweet
- Spindle tree
- Snow-drop
- Mock Orange
- European Maple
- Purple flowering Raspberry
- Spiraea Japonica
- Nine-bark

Class 5.

Purple, crimson and scarlet  
with only a little green or  
yellow.

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- Bush Honeysuckle
- Pepperidge
- Flowering Dogwood
- Southern Cypress
- Common Barberry
- Japanese Barberry
- Red Sumack
- Smooth Sumack
- High bush Cranberry
- Common Chokeberry
- Beach Plum

Class 6.

Varigated with all the above  
colors on the same or different  
trees of the same species.

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- Red Osier
- Rock or Sugar Maple
- Red or Swamp Maple.
- Black Sugar Maple
- Sassafras
- Red Oak
- Scarlet Oak
- White Oak
- Black Oak

Class 7.

Passing through shades of dark  
chocolate, brown, salmon and  
violet.

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- Virginia Creeper
- Sweet Gum
- Green Ash
- Black Ash
- Anenba-leaved Ash
- Blue Ash
- Garden Plum
- Common Pear
- Shad Bush.

A M A R Y L L I D A C E A E

Amaryllis Family,

4. Galanthus nivolis - Snowdrop.

October 6th - 20th. November 1st.

Yellow.

B I G N O N I A C E A E

Bignonia Family.

1. Catalpa ~~Bignonioides~~ : Common Catalpa.

October 3rd - 17th - 27th.

Golden Yellow.

B E R B E R I D A C E A E

Barberry Family.

5. Berberis vulgaris - Common barberry

October 15th - 27th - November 12th.

Dark Scarlet.

5. Berberis Japonica - Japanese Barberry.

October 14th - 28th - November 13th.

Scarlet and Yellow.

A R I S T O L O C H I A C E A E .

Birthwort Family.

1. Aristolochia sipho - Dutchman's Pipe.

October 10th - 25th - November 2nd.

Golden Yellow.

B E T U L A C E A E

Birch Family.

1. *Betula alba* var. *populifolia* - American White Birch.

October 6th - 25th - November 1st.

Corn yellow, shading into rich brown on edges.

1. *Betula Popyrocea* - Canoe or Paper birch.

October 5th - 25th - November 1st.

Lemon yellow.

A N A C A R D I A C I A E

Cashew Family.

1. Rhus catinus - Smoke tree or Venetian sumach

October 1st - 15th - 25th.

Deep Orange Yellow.

5. Rhus typhina - Staghorn or red sumach

October 5th - 15th-30th.

Bright scarlet.

5. Rhus glabra - Smooth sumach

September 5th - 29th - October 6th.

Bright scarlet.



C O R N A C E A E

Dogwood Family.

5. *Nyssa multiflora* - Pepperidge.

October 15th - 26th - 30th.

Red and yellow.

5. *Cornus florida* - Flowering dogwood.

September 25th - October 12th - 18th.

Purple and crimson.

A R O L I A C E A E

Ginseñg Family.

3. Hedera helix - True or English Ivy.

October 6th - November 28th.

Yellowish cast.

ERICACEAE

Heath Family.

5. *Viburnum opulus* - High-bush cranberry.

October 15th - 25th - 31st.

Green and plum.

C A P R I F O L I A C E A E

Honeysuckle Family.

3. *Sambucus canadensis* - Common or black-berried Elder.

October 5th.

3. *Sonicera Japanica* - Japan Honeysuckle.

October 20th - November 2nd.

5. *Diervilla sessilifolia* - Bush honeysuckle.

October 10th - 23rd - 27th.

Bright red, yellow and green.

1. *Viburnum opulus* - Snowball tree.

October 3rd - 10th - 25th.

Rusty yellow.

L **Q** U R A C E A E.

Laurel Family.

6. Sassafras officinale - Sassafras

October 1st - 23rd - 30th.

Bright red and golden yellow.

T I L I A C E A E .

Linden Family.

1. *Tilia americana* - American linden or common basswood.

October 1st - 23rd - 31st.

Golden yellow.

M A G N O L I A C E A E

Magnolia Family.

1. *Liriodendron tulipifera* - Tulip tree.

October 1st - 23rd - 31st.

Deep orange yellow.

1. *Magnolia acuminata* - Cucumber tree.

October 2nd - 18th - 31st.

Deep yellow.

U R T I C A C E A E

Nettle Family.

1. *Morus rubra* - Red mulberry  
October 16th - 17th - November 7th.  
Lemon yellow.
1. *Broussonetia papyrifera* - Japan mulberry  
October 6th - 20th - November 2nd.  
Golden yellow.
1. *Ulmus racemosa* - Corky white elm  
October 9th - 21st - November 19th.  
Deep golden yellow.
1. *Ulmus americana* - American or white elm.  
October 8th - 25th - November 10th.  
Green predominant blotched with rust.
1. *Ulmus fulva* - Slippery elm.  
October 16th - 22nd - November 1st.  
Golden yellow.
1. *Maclura aurantiaca* - Common osage orange  
October 6th - 21st - November 2nd.  
Golden yellow.



C U P U L I F E R A E

Oak Family.

1. *Fagus ferruginea* - American beech.  
October 2nd - 22nd - November 20th.  
Golden yellow.
2. *Ostrya virginica* - Ironwood  
October 12th - 29th - November 5th.  
Rusty orange, yellow and green.
6. *Quercus rubra* - Red oak  
October 21st - 31st - November 12th.  
Lemon and pure yellow, golden-yellow, red  
and purple.
6. *Quercus coccinea* - Scarlet oak.  
October 19th - 29th - November 10th.  
Bright red, brown, reddish yellow and green
6. *Quercus alba* - White oak  
October 10th - 23rd - November 4th.  
Garnet, green and brown and red.
6. *Quercus tinctoria* - Yellow barked or black oak.  
October 12th - 23rd - November 5th.  
Orange, yellow and brown.

E L A E A G N A C E A E

Oleaster Family.

2. *Shepherdia argentia* - Buffalo berry

September 17th - October 6th - 18th.

Yellowish green.

A L E A C E A E


Olive Family.

7. *Fraxinus viridis* - Green ash  
October 5th - 18th - 25th  
Corn yellow, rusty green with purple.
7. *Fraxinus sambucifolia* - Black ash  
September 28th - October 6th - 20th.  
Purplish green with salmon tints.
7. - Anenba leaved ash.  
September 12th - 30th - October 6th.  
Rusty yellow and green.
1. *Syringa vulgaris* - Common lilac  
October 6th - 30th - November 9th.  
Lemon yellow.
1. *Syringa Persica* - Persian lilac  
October 9th - 31st - November 10th.  
Golden yellow.
7. *Fraxinus quadrangulata* - Blue ash.  
October 3rd - 21st - 31st.  
Rusty green and yellow with salmon.

**L E G U M I N O S A E**

Pulse Family.

1. *Robinia pseudacacia* - Common locust  
October 4th - 28th - November 2nd.  
Orange yellow.
1. *Cladrastis tinctoria* - Yellow wood  
October 4th - 15th - 30th.  
Brownish yellow.
3. *Robinia hispida* - Rose acacia  
October 15th.  
Yellowish cast.
1. *Calutea arborescens* - Common bladder- senna.  
October 31st - November 12th - 17th.  
Greenish yellow.
1. *Gleditschia triacanthos* - Common honey locust  
October 1st - 20th - 30th.  
Orange yellow.

C  N I F E R A E

Pine Family

II Cypress Family.

5. *Taxodium distichum* - Southern cypress.

October 16th - 27th - November 1st.

Rusty red.

P L A T A N A C E A E

Plane-tree Family.

2. *Platanus occidentalis* - Sycamore

October 4th - 17th - 30th.

Lemon yellow and green.

R O S A C E A E

Rose Family.

1. Spiraea salicifolia - Common meadow sweet.  
October 8th - 31st - November 8th.  
Corn yellow.
1. Crataegus oxyacantha - English hawthorn  
October 3rd - 25th - November 3rd.  
Slight reddish cast on orange yellow to brown on edges.
1. Prunus virginiana - Choke-cherry  
October 10th - 25th - November 3rd.  
Golden yellow with few touches of red.
1. Prunus Pennsylvanica - Wild red cherry  
October 6th - 19th - 29th.  
Brownish yellow.
1. Cydonia Japonica - Japan Quince  
October 19th - November 2nd - 10th.  
Rich golden yellow.
3. - Choke cherry shrub  
October 8th
4. Spiraea Douglasii - Douglas's meadow sweet.  
October 30th - November 4th - 10th.  
Bronze.
4. Spiraea opulifolia - Nine bark  
October 17th - 31st - November 10th.  
Lemon yellow.
4. Spiraea Japonica  
October 15th - 30th - November 5th.  
Orange.

R O S A C E A E

Rose Family.

4. *Rubus odoratus* - Purple flowering raspberry  
October 15th - 30th - November 5th,  
Orange.
5. *Pyrus arbutifolia* - Common chokeberry  
October 10th - 23rd - November 1st.  
Green, brick-red and purple.
1. *Prunus amygdalus nana* - Flowering almond  
October 3rd - 20th - 31st.  
Lemon yellow.
7. *Prunus domestica* - Garden Plum  
October 20th-31st - November 7th.  
Purplish pink and salmon.
5. *Prunus maritima* - Beach plum  
October 5th - 23rd - November 1st.  
Purple and crimson.
7. *Pyrus communis* - Common pear  
October 6th - 18th - 31st.  
Deep violet and red.
7. *Amelanchier canadensis* - Shad bush  
October 3rd - 23rd - November 6th.  
Purple.
1. *Spiraea trilobata*  
October 10th-31st - November 7th.  
Golden yellow.
1. *Spiraea crenata*



R O S A C E A E  
Rose Family.

October 20th - November 5th - 13th.

Yellow ochre.

1. *Spiraea rotundifolia*

October 25th - November 3rd - 12th

Reddish yellow.

1. *Rosa rubiginosa* - Sweet briar

October 20th - November 8th - 14th.

Three shades of yellow-cream, lemon and golden.

C E L A S T R A C E A E

Staff-tree Family.

4. *Celastrus scandens* - Climbing bittersweet

October 7th - 22nd - November 1st.

Golden yellow.

4. *Eonymus europaeus* - European spindle tree

October 6th - 20th - November 3rd.

Pure yellow.

S A X I F R A G A C E A E

Saxifrage Family.

3. *Hydrangea hortensia* - Common hydrangea

October 31st

Brown.

4. *Philadelphus coronarius* - Common mock orange

October 15th - 25th - November 2nd.

Orange and lemon yellow.

1. *Philadelphus latifolius* - Broad-leaved syringa

October 4th - 20th - 30th.

Golden yellow.

1. *Ribes nigrum* - Flowering currant

October 1st - 15th - 21st .

Golden yellow.

S A P I N D A C E A E

Soapberry Family.

111 Maple Family.

1. Acer platanoides - Norway Maple  
October 5th - 22nd - 30th.  
Pale lemon yellow
2. Aesculus hippocastanum - Horse chestnut  
October 4th - 16th - 23rd.  
Rusty yellow and green.
2. Negundo aceroides - Box elder  
October 1st - 20th - 25th.  
Lemon yellow the predominant green to brown blotches.
3. Acer dilatatum  
October 31st.  
Touches of brick-red.
6. European maple.  
October 8th - 23rd- November 1st.  
Pure yellow.
6. Acer saccharinum - Rock or sugar maple  
October 13th - 21st - November 1st.  
Birck red yellow and green.
6. Acer Rubrum - Red or swamp maple  
October 13th - 22nd - 30th.  
Yellow predominating with red shades. Effect of  
Effect of maginta.
6. Acer nigrum - Black sugar maple  
October 7th - 21st - 29th  
Lemon yellow, scarlet, brightened with yellow.

S A P I N D A C E A E

Soapberry Family.

111 Maple family.

1. *Stophylea trifolia* - American bladdernut

October 10th - 23rd - 30th.

Lemon yellow.

1. *Acer dasycarpum* - White or silver maple

October 19th - 31st - November 4th

Deep orange yellow - large amount of rust.

T A M A R I S C I N E A E

Tamarisk Family.

1. *Tamarix gallica* - French tamarisk

October 8th - November 3rd - 18th.

Brownish yellow.

V I T A C A E

Vine Family.

7. *Ampelopsis quinquefolia* - Virginia creeper.

September 25th - October 6th - 18th

From bright scarlet to vivid red, crimson and violet.

S A L I C A C E A E

Willow Family.

2. *Populus monilifera* - Cottonwood

October 1st - 23rd - 30th.

Deep yellow with rusty spots.

6. *Salix purpurea* - Redosier

October 12th - 20th - November 1st.

Deep red, purple and green on same leaf.

1. *Populus alba* - White poplar

September 15th - 27th - 30th.

Deep orange yellow.

1. *Populus dilatata* - Lombardy poplar

October 6th - 20th - 31st.

Golden yellow with russet

1. *Populus tremuloides* - American aspen.

October 1st - 15th - 29th

Golden yellow.

1. *Populus candicans* - Balm of Gilead poplar

October 3rd - 10th - 30th.

Yellow.

1. *Salix babylonica* - Weeping willow.

October 21st - November 3rd-11th.

Lemon yellow.



J U G L A N D A C E A E

Walnut Family

2. *Juglans cinerea* - Butternut

October 1st - 15th - 24th

Clear yellow and green.

2. *Juglans nigra* - Black walnut

September 22nd - October 2nd - 17th.

Rusty orange.

1. *Carya alba* - Shagbark hickory

October 7th - 19th - 30th.

Deep orange with brown spots.

H A M A M E L O C E A E

Witch-hazel Family.

7. *Liquidambar styraciflua* - Sweet gum tree

September 30th - October 10th - 18th.

Salmon and Violet.

