



**PRO**  
**Green** EXPO  
**Colorado Convention Center**

Denver, CO | February 13- 16

**Basic Woody Plant Identification for  
Certification**

# Basic Woody Plant Identification for Certification ProGreen Expo

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**COLORADO STATE UNIVERSITY**  
**EXTENSION**

# Identifying Common Landscape Tree Species Along Colorado's Front Range

## Bud\Leaf Arrangement

### A. Alternate- Go to Page



Alternate leaf arrangement

Genera: hackberries (*Celtis*), hawthorns (*Crataegus*), walnuts (*Juglans*), apple (*Malus*), poplars (*Populus*), cherries (*Prunus*), pears (*Pyrus*), oaks (*Quercus*), mt. ashes (*Sorbus*), lindens (*Tilia*), elms (*Ulmus*), legumes (Various genera) and etc.

### B. Opposite- Go to Page 3



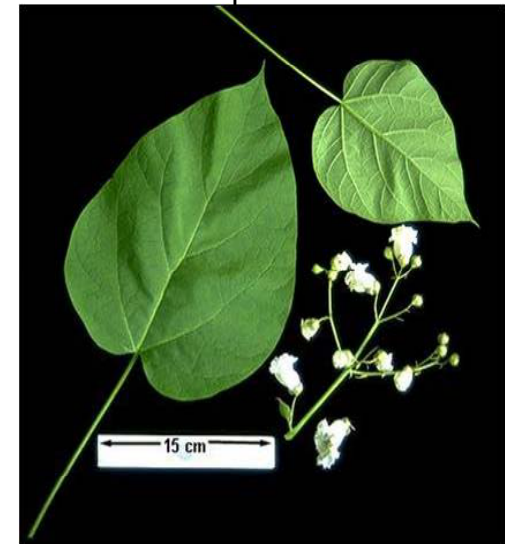
Opposite leaf arrangement

Genera: maples (*Acer*), buckeyes (*Aesculus*) and ash (*Fraxinus*)

### C. Whorled- Northern catalpa



Whorled leaf arrangement: three buds per node



Northern catalpa - Leaves and flowers

# Woody Plants

## Whorled Leaf Arrangement

### Deciduous Trees

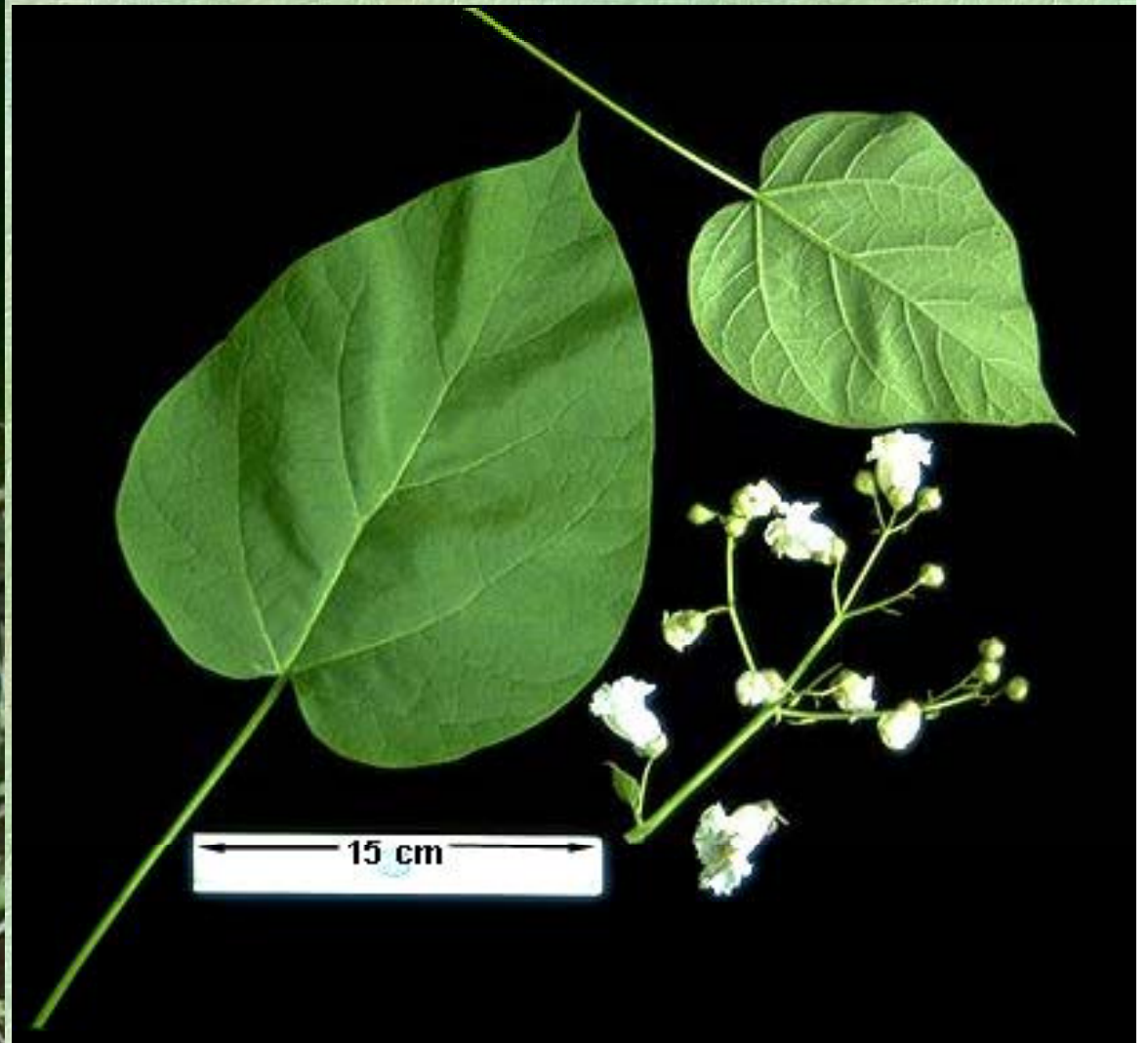


*Catalpa speciosa*

**Western or Northern Catalpa**

*Catalpa speciosa*

## Western or Northern Catalpa - leaves



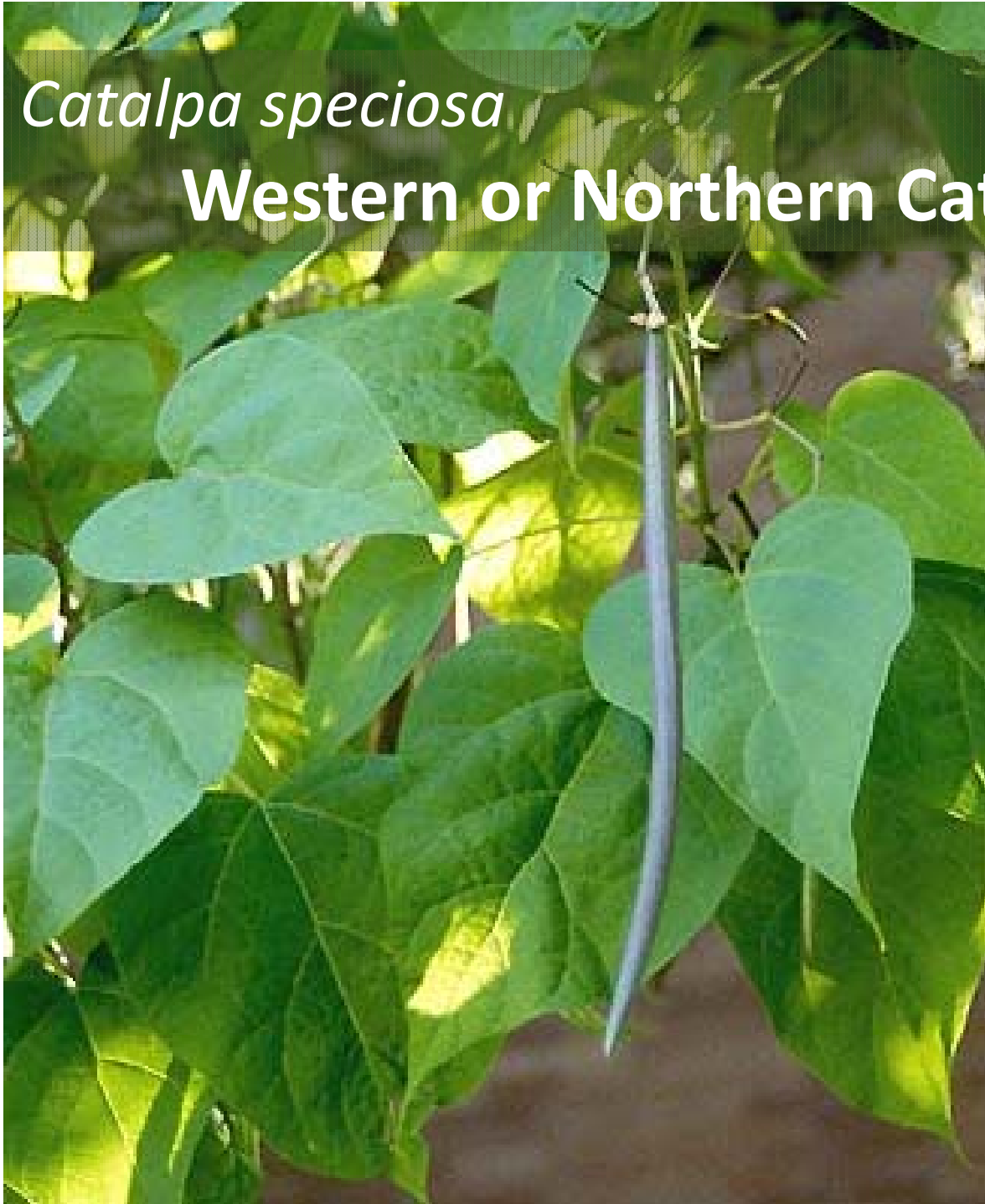
*Catalpa speciosa*

Western or Northern Catalpa - flowers



*Catalpa speciosa*

Western or Northern Catalpa - fruit





*Catalpa speciosa*

Western or Northern Catalpa - fall foliage



*Catalpa speciosa*

## Western or Northern Catalpa – winter ID



Raised, crater-like  
leaf scars, 3 per  
node (whorled)

# Deciduous Trees: Alternate leaf arrangement, simple leaves



Alternate leaf arrangement



Simple leaf- a single undivided leaf

*Ginkgo biloba*  
**Ginkgo**

*Ginkgo biloba*  
Ginkgo- leaves



*Ginkgo biloba*  
*Ginkgo*- flowers



<https://naturewalk.yale.edu/trees/ginkgoaceae/ginkgo-biloba/ginkgomaidenhair-tree-24>

*Ginkgo biloba*  
Ginkgo- Fruit



Photo credit: K. Zuzek UMN Extension

*Ginkgo biloba*

*Ginkgo*- Fall foliage





*Ginkgo biloba*

*Ginkgo*- Fall foliage



*Ginkgo biloba*

*Ginkgo*- winter ID



*Ginkgo biloba*

*Ginkgo*- winter ID



*Quercus gambelii*  
**Gambel Oak**

*Quercus gambelii*  
Gamble Oak – leaves



*Quercus gambelii*

*Gamble Oak – flowers*



*Quercus gambelii*  
Gamble Oak – fruit



*Quercus gambelii*  
*Gamble Oak* – fall foliage



[http://wnmu.edu/academic/nspages/gilaflora/quercus\\_gambelii.html](http://wnmu.edu/academic/nspages/gilaflora/quercus_gambelii.html)



*Quercus gambelii*

*Gamble Oak* – size, growth habit



Photos: UNC, CSFS



*Quercus gambelii*  
Gamble Oak – winter ID



*Quercus macrocarpa*

**Bur Oak, Mossycup Oak**

*Quercus macrocarpa*

**Bur Oak, Mossycup Oak - leaves**



*Quercus macrocarpa*

**Bur Oak, Mossycup Oak - flowers**



*Quercus macrocarpa*

**Bur Oak, Mossycup Oak - fruit**



*Quercus macrocarpa*

Bur Oak, Mossycup Oak - fall



*Quercus macrocarpa*

Bur Oak, Mossycup Oak - twigs





*Quercus macrocarpa*

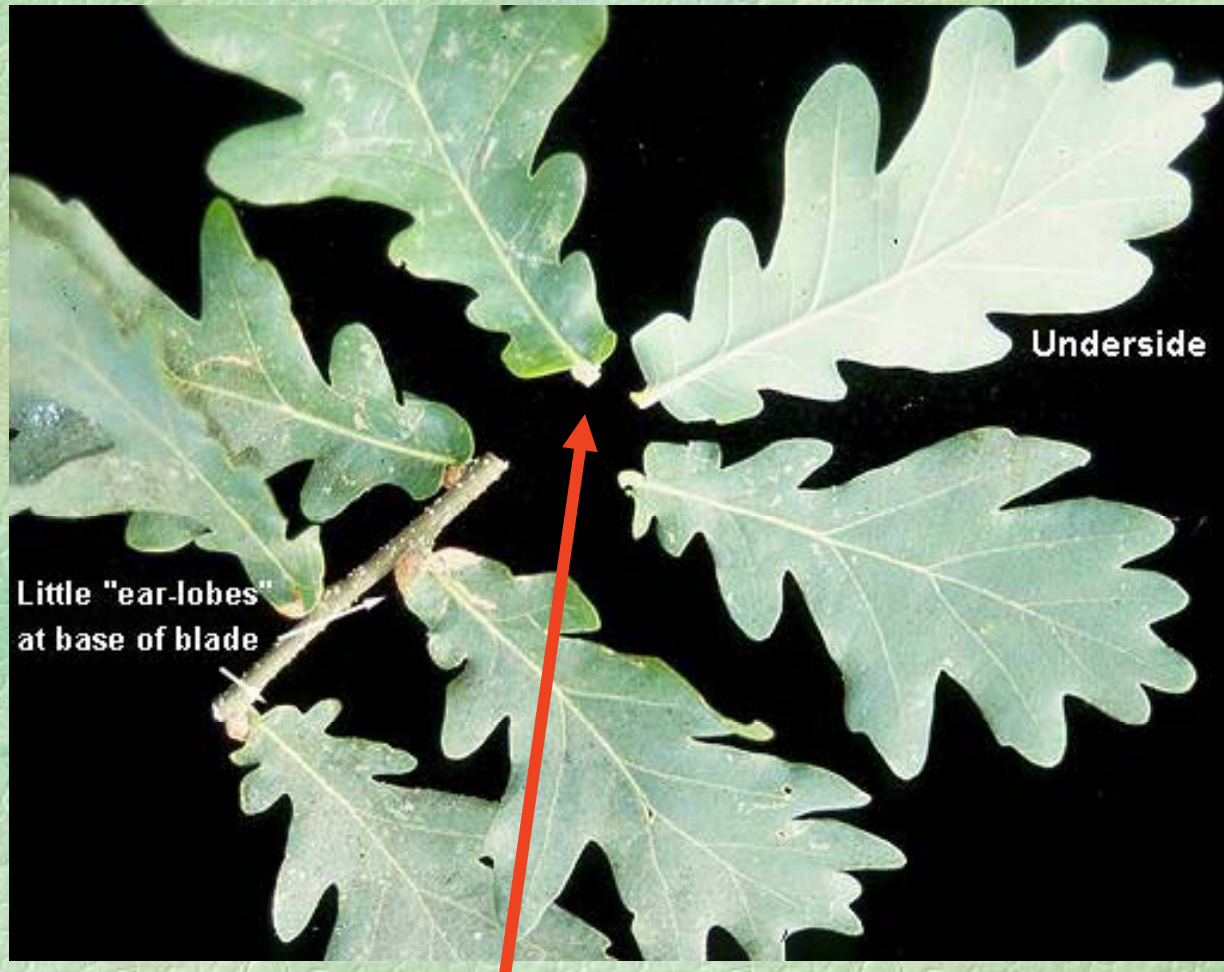
Bur Oak, Mossycup Oak - galls



*Quercus robur*  
**English Oak**

*Quercus robur*

## English Oak - leaves



Little "ear-lobes"  
at base of blade

Underside

**Very short petioles**

*Quercus robur*

English Oak - flowers



*Quercus robur*

English Oak - fruit



*Quercus robur*

English Oak - fall foliage



*Quercus robur*

English Oak - winter



# *Upright Quercus hybrids and Cultivars*



Regal Prince  
*Q. alba* x *bicolor*



**Upright English Oak**  
*Q. robur* 'Fastigiata'



Crimson Spire Oak  
*Q. robur* x  
*Q. alba* 'Crimschmidt'



*Quercus rubra*  
**Red Oak**

*Quercus rubra*

Red Oak - leaves



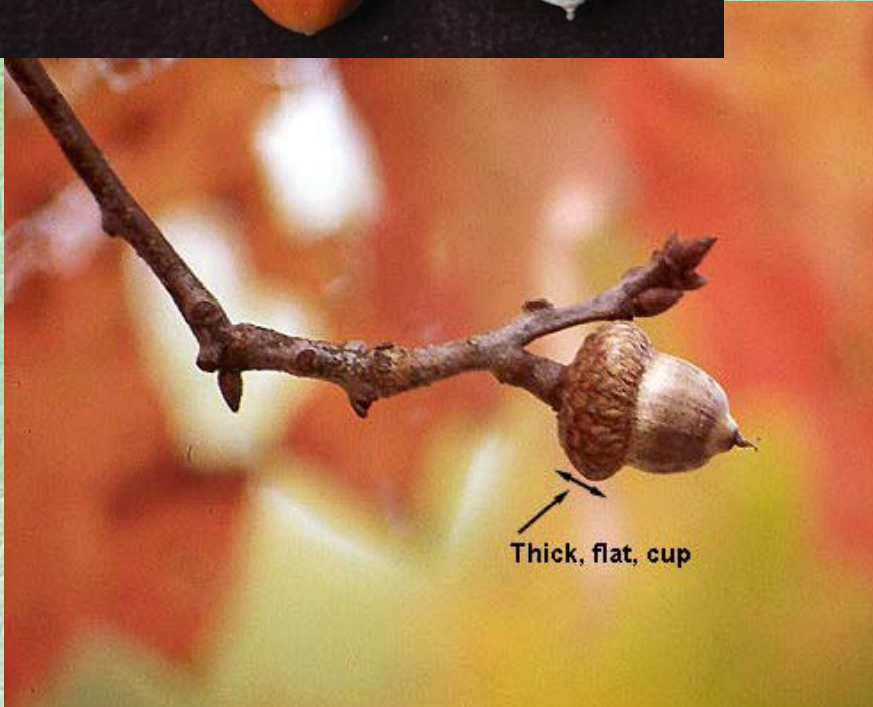
*Quercus rubra*

Red Oak - flowers



*Quercus rubra*

Red Oak - fruit



*Quercus rubra*

Red Oak - fall foliage



2012 © Peter M. Dziuk

*Quercus rubra*

**Red Oak – winter ID**



*Quercus rubra*

Red Oak – winter twigs



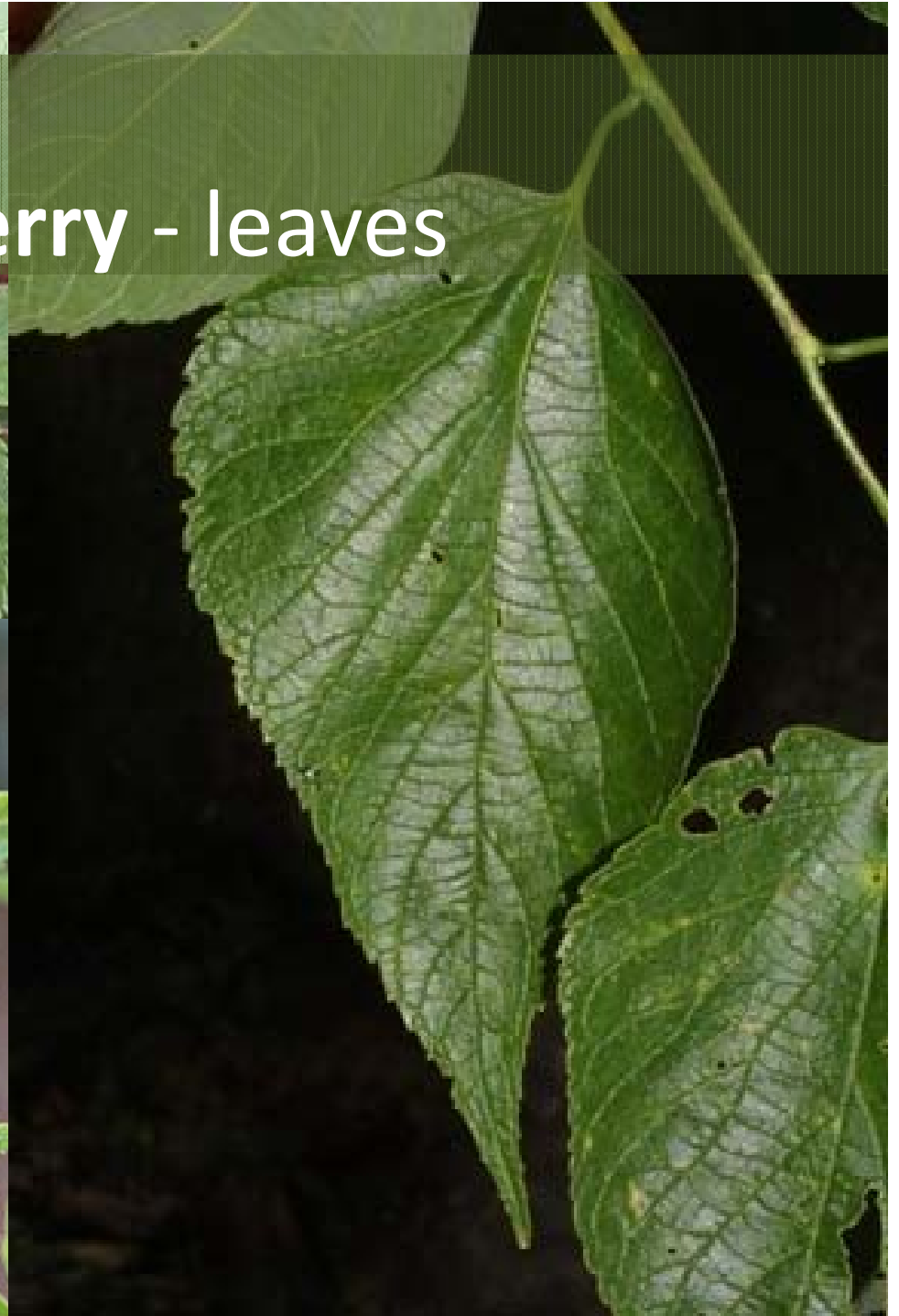
*Celtis occidentalis*

**Common Hackberry**



*Celtis occidentalis*

**Common Hackberry - leaves**



*Celtis occidentalis*

**Common Hackberry – nipple galls**



*Celtis occidentalis*

**Common Hackberry - flowers**



*Celtis occidentalis*

# Common Hackberry - fruit



*Celtis occidentalis*

**Common Hackberry - fall foliage**



*Celtis occidentalis*

Common Hackberry – winter



*Cercis canadensis*  
**Eastern Redbud**

*Cercis canadensis*

Eastern Redbud - leaves





*Cercis canadensis*

Eastern Redbud - flowers



*Cercis canadensis*

Eastern Redbud - fruit



*Cercis canadensis*

Eastern Redbud - fall foliage



*Cercis canadensis*

Eastern Redbud - winter



*Tilia americana*

**American Linden**

*Tilia americana*

**American linden - leaves**



*Tilia americana*

**American linden - flowers**



*Tilia americana*

**American linden – Fall foliage**





*Tilia americana*

American linden – Winter ID



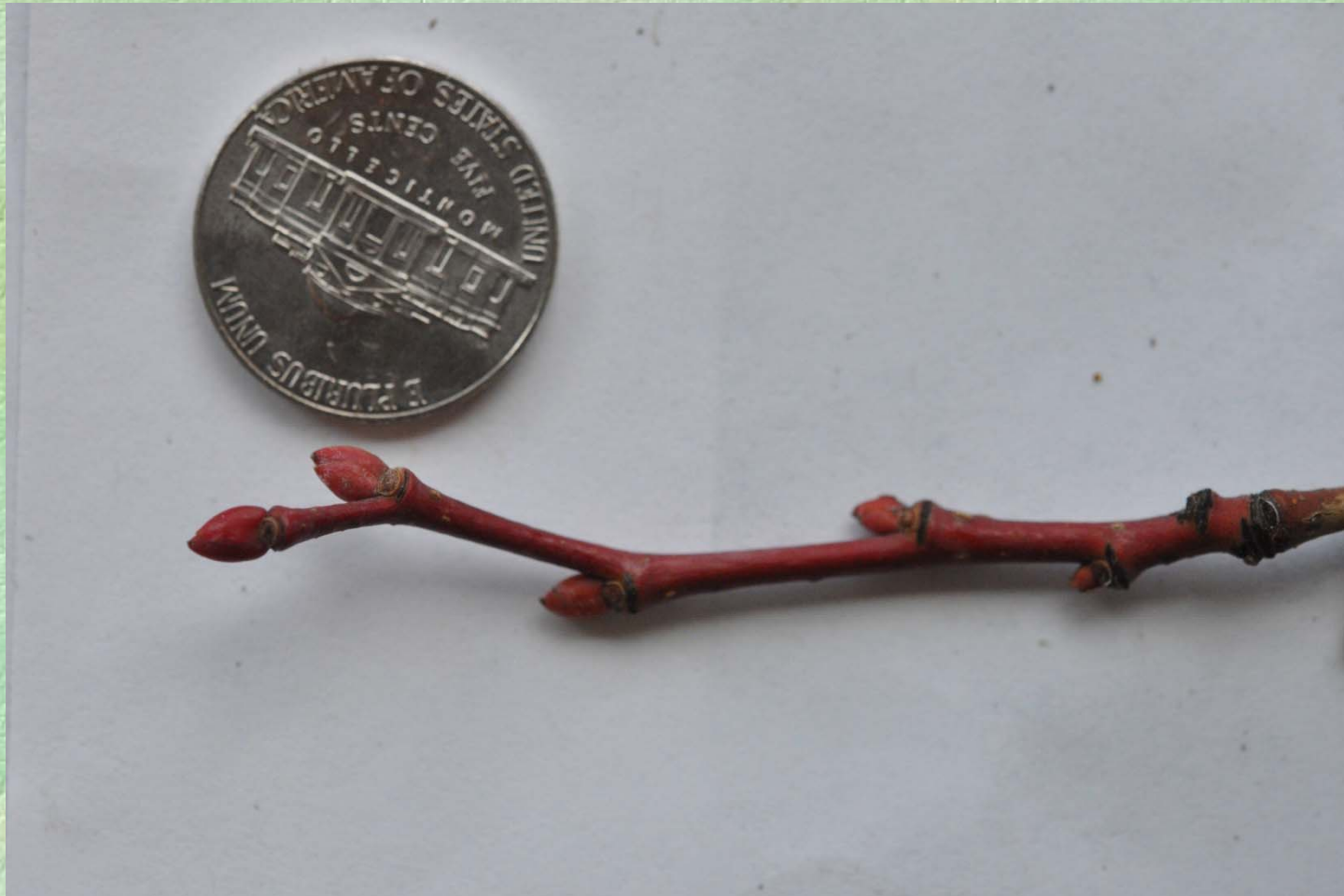
*Tilia americana* 'Redmond'

Redmond American linden - leaves



*Tilia americana* 'Redmond'

Redmond American linden – Winter ID



*Tilia americana* 'Redmond'

**Redmond American Linden**

*Tilia cordata*

**Littleleaf Linden**

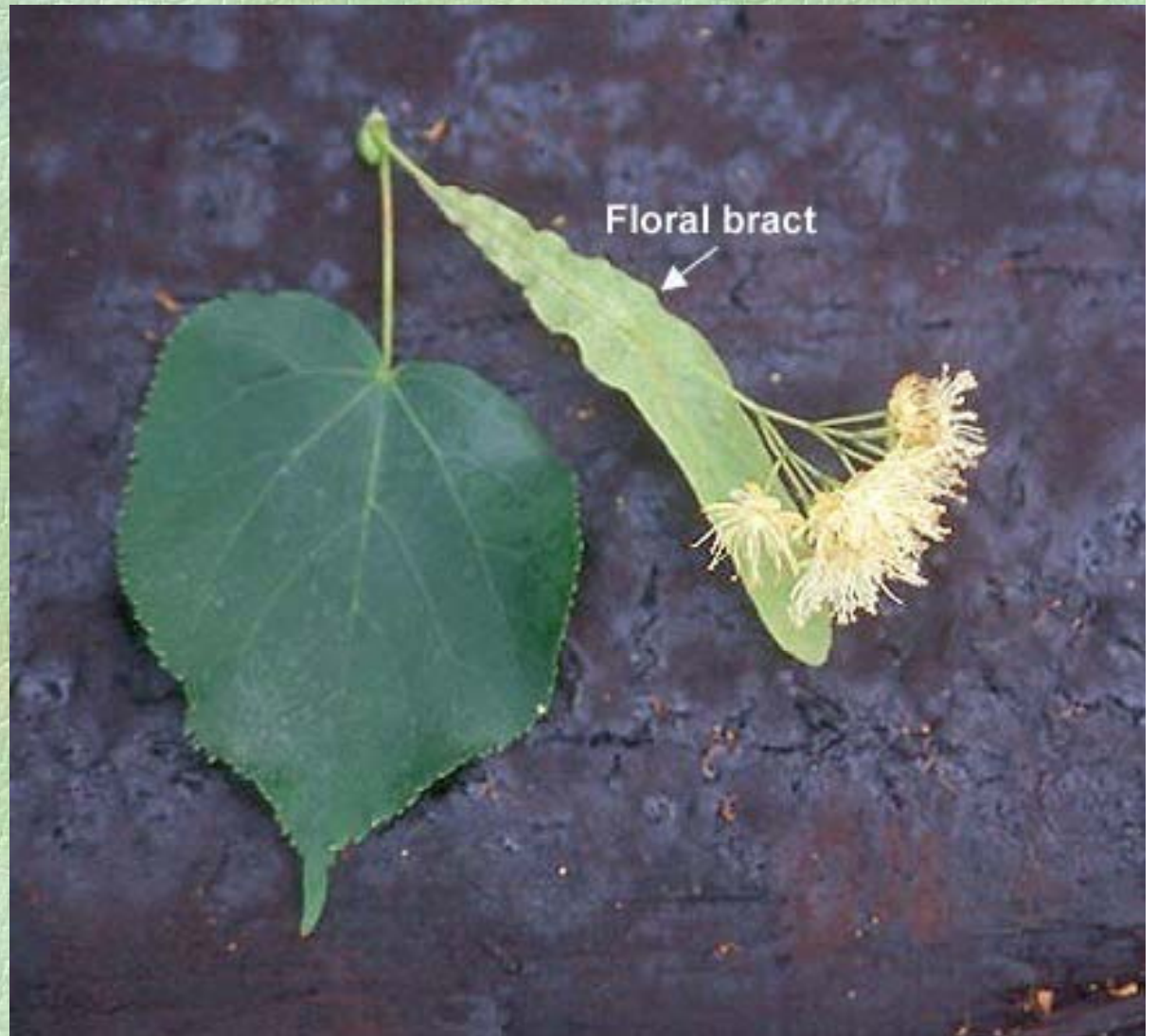
*Tilia cordata*

**Littleleaf Linden – leaves, flowers**



*Tilia cordata*

Littleleaf Linden - flowers



*Tilia cordata*

Littleleaf Linden - fruit





# *T. coradata* vs. *T. americana*

## Fruit

**Littleleaf Linden**



**American Linden**



*Tilia cordata*

Littleleaf Linden - fall foliage



*Tilia cordata*

Littleleaf Linden - winter



*Tilia cordata*

Littleleaf Linden 'Greenspire'



# *Tilia* comparison

Littleleaf Linden



American Linden

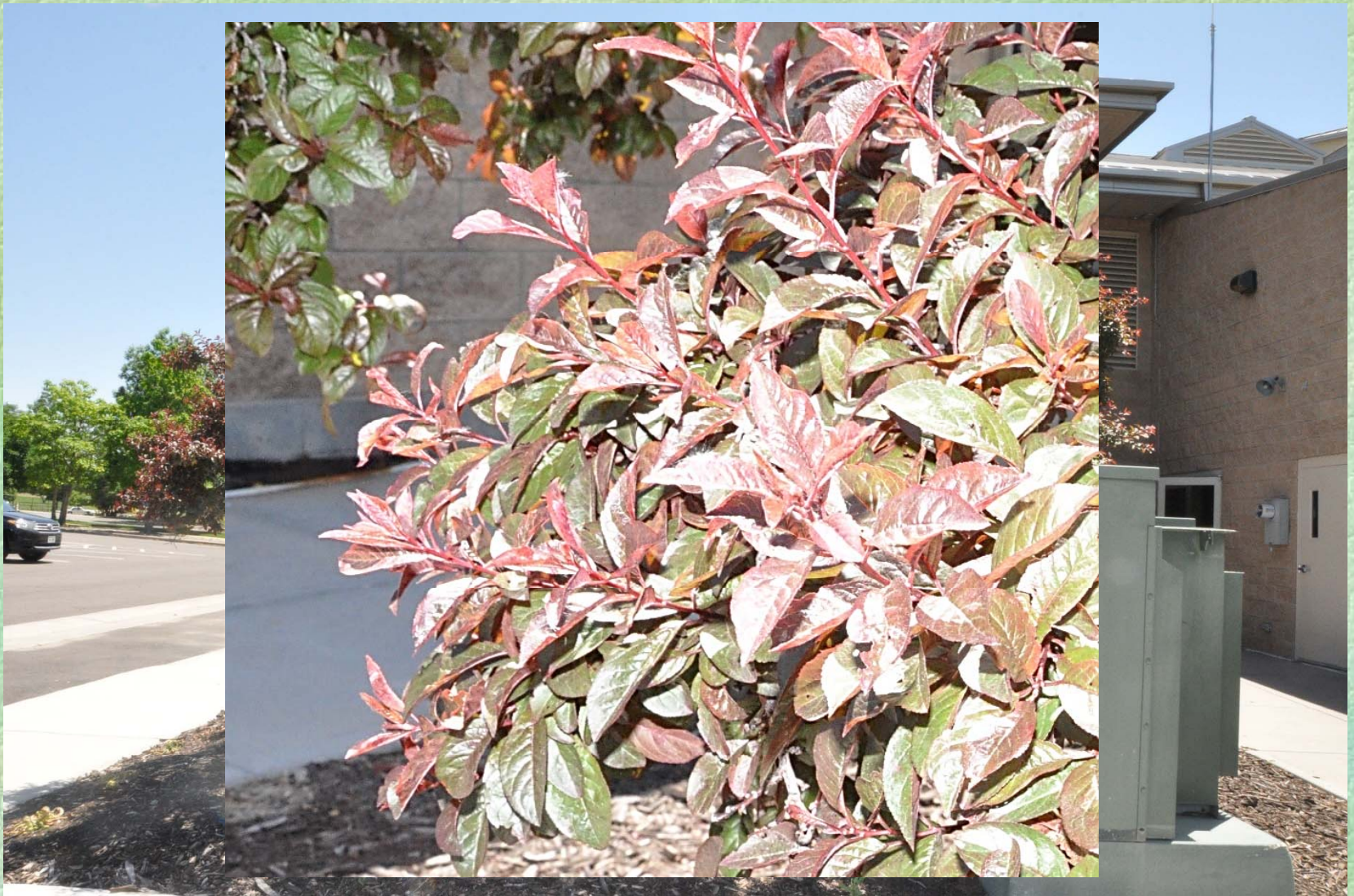


Redmond Linden



*Prunus cerasifera* 'Newport'  
**Newport Plum**

*Prunus cerasifera* 'Newport'  
Newport plum - leaves



*Prunus cerasifera* 'Newport'  
Newport plum - Flowers





*Prunus cerasifera* 'Newport'

**Newport plum - Fruit**

*Prunus cerasifera* 'Newport'  
Newport plum – Winter ID



*Pyrus calleryana*  
**Callery Pear**

*Pyrus calleryana*

Callery Pear - leaves



*Pyrus calleryana*

Callery Pear - flowers



*Pyrus calleryana*

Callery Pear - fruit



*Pyrus calleryana*

Callery Pear - fall foliage



*Pyrus calleryana*

## Callery Pear – growth habits



Chanticleer



Aristocrat



*Pyrus calleryana*

## Callery Pear – growth habits



Redspire



Bradford

*Pyrus calleryana*

Callery Pear - winter



*Pyrus calleryana*

Callery Pear - winter



*Crataegus crusgalli inermis*

**Thornless Cockspur Hawthorn**

*Crataegus crusgalli inermis*

Thornless Cockspur Hawthorn - leaves



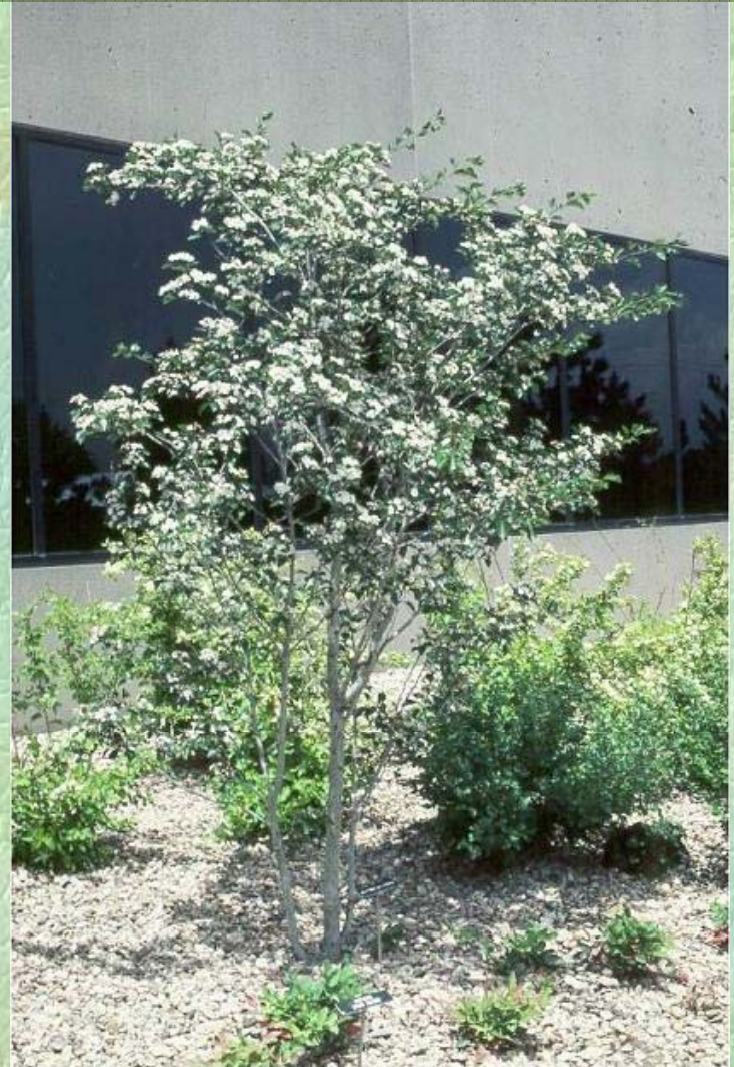
*Crataegus crusgalli inermis*

**Thornless Cockspur Hawthorn - buds**



*Crataegus crusgalli inermis*

Thornless Cockspur Hawthorn - flowers



*Crataegus crusgalli inermis*

Thornless Cockspur Hawthorn - fruit



summer

fall





*Crataegus crusgalli inermis*

**Thornless Cockspur Hawthorn - fall**



*Crataegus crusgalli inermis*

Thornless Cockspur Hawthorn - winter



*Populus deltoides*  
**Cottonwood**

*Populus deltoides*  
*Cottonwood - leaves*



*Populus deltoides*  
Cottonwood - leaves



[https://www.extension.iastate.edu/forestry/iowa\\_trees/trees/eastern\\_cottonwood.html](https://www.extension.iastate.edu/forestry/iowa_trees/trees/eastern_cottonwood.html)

*Populus deltoides*  
Cottonwood – Fall foliage



*Populus deltoides*

Cottonwood – Winter ID



*Populus tremuloidea*  
**Quaking Aspen**

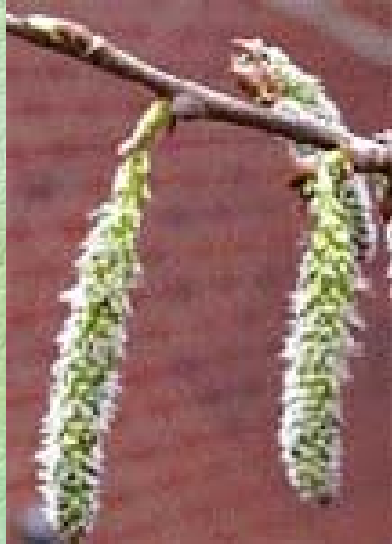


*Populus tremuloides*  
Quaking Aspen - leaves



*Populus tremuloides*

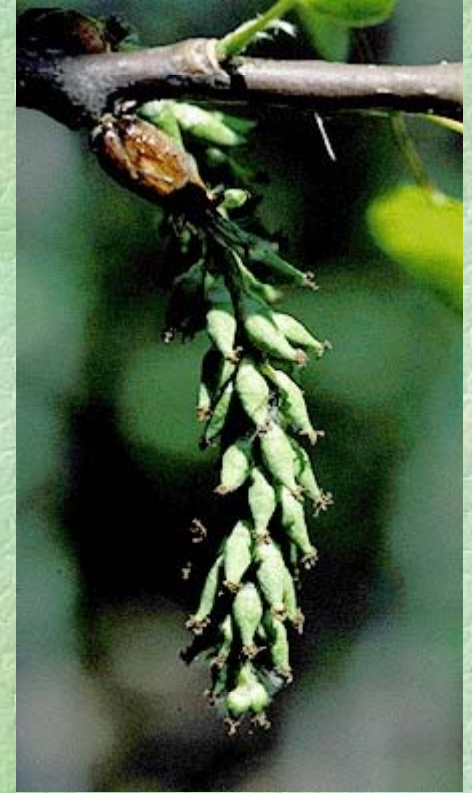
*Quaking Aspen – Flowers and Fruit*



female



male



fruit

*Populus tremuloides*  
*Quaking Aspen – Fall Foliage*



*Populus tremuloides*  
Quaking Aspen – Winter ID



*Populus tremuloides*  
Quaking Aspen – Winter ID



## Question 1:

This woody plant has alternate, simple leaf arrangement with lobed fiddle-shaped leaves. It is adaptable to Colorado soils and tolerates urban environmental conditions. Many plants of this genus/species have ridges on branches and stems.

- a. *Catalpa speciosa*
- b. *Quercus robur*
- c. *Quercus macrocarpa*
- d. *Tilia cordata*



## Question 1:

This woody plant has alternate, simple leaf arrangement with lobed fiddle-shaped leaves. It is adaptable to Colorado soils and tolerates urban environmental conditions. Many plants of this genus/species have ridges on branches and stems.

- a. *Catalpa speciosa*
- b. *Quercus robur*
- c. *Quercus macrocarpa*
- d. *Tilia cordata*



## Question 2:

This tree has alternate, simple heart-shaped leaves and fragrant yellow/white flowers in June. The small, yellowish-brown teardrop shaped buds are a winter ID feature. Mature tree is medium sized with dense pyramidal growth.

- a. *Tilia americana*
- b. *Cercis canadensis*
- c. *Pyrus calleryana*
- d. *Tilia cordata*





## Question 2:

This tree has alternate, simple heart-shaped leaves and fragrant yellow/white flowers in June. The small, yellowish-brown teardrop shaped buds are a winter ID feature. Mature tree is medium sized with dense pyramidal growth.

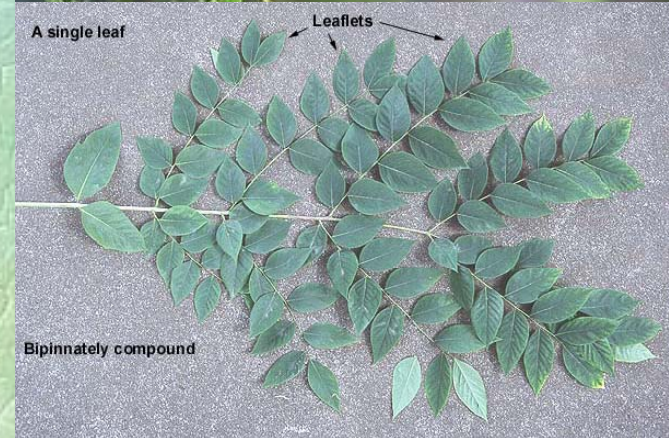
- a. *Tilia americana*
- b. *Cercis canadensis*
- c. *Pyrus calleryana*
- d. *Tilia cordata*



# Deciduous Trees: Alternate leaf arrangement, compound leaves



Alternate leaf arrangement



Compound leaf-  
multiple leaflets per  
bud

*Sorbus aucuparia*

**European Mountain-Ash**

*Sorbus aucuparia*

European Mountain-Ash - leaves



*Sorbus aucuparia*

European Mountain-Ash - flowers



*Sorbus aucuparia*

European Mountain-Ash - fruit



*Sorbus aucuparia*

European Mountain-Ash - fall



*Sorbus aucuparia*

European Mountain-Ash - winter



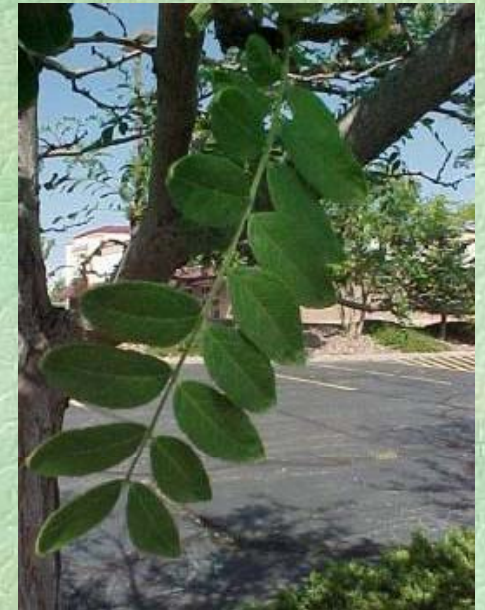


*Gleditsia triacanthos inermis*

**Thornless Common Honeylocust**

*Gleditsia triacanthos inermis*

**Thornless Common Honeylocust - leaves**



*Gleditsia triacanthos inermis*

Thornless Common Honeylocust - fruit



*Gleditsia triacanthos inermis*

**Thornless Common Honeylocust - fall foliage**



*Gleditsia triacanthos inermis*

**Thornless Common Honeylocust – winter twigs**



*Koelreuteria paniculata*  
**Goldenrain Tree**

*Koelreuteria paniculata*

Goldenrain Tree - leaves



Leaflet



Leaf



*Koelreuteria paniculata*

**Goldenrain Tree - flowers**





*Koelreuteria paniculata*  
Goldenrain Tree - fruit



*Koelreuteria paniculata*

**Goldenrain Tree - fall foliage**



<http://www.localecologist.org/2011/12/urban-tree-of-year-2011-goldenraintree.html>

*Koelreuteria paniculata*

**Goldenrain Tree – winter twig**



*Koelreuteria paniculata*

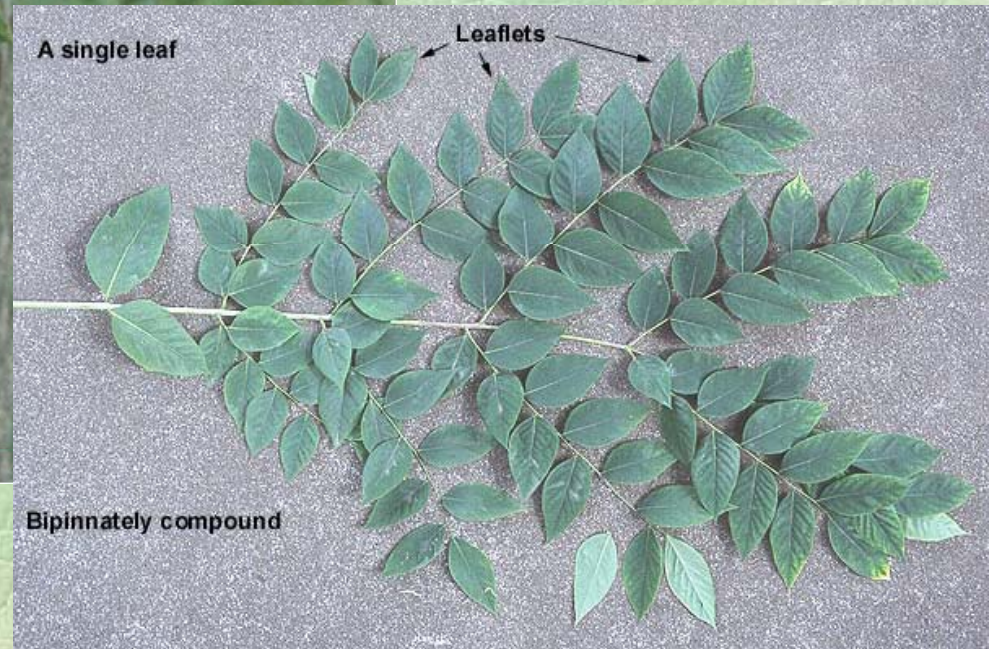
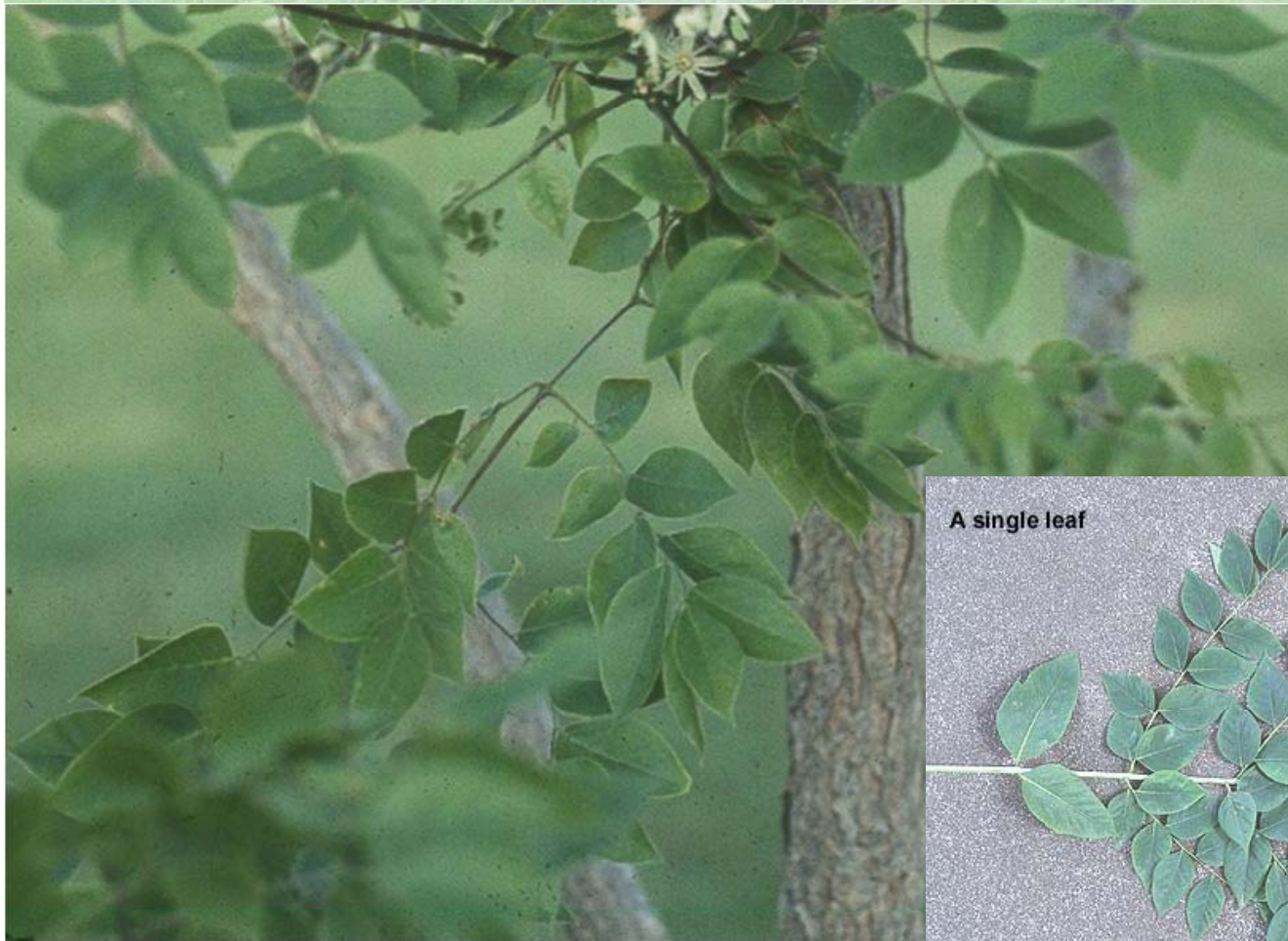
**Goldenrain Tree – winter twig**



*Gymnocladus dioica*  
**Kentucky Coffeetree**

*Gymnocladus dioicus*

# Kentucky Coffeetree - leaves



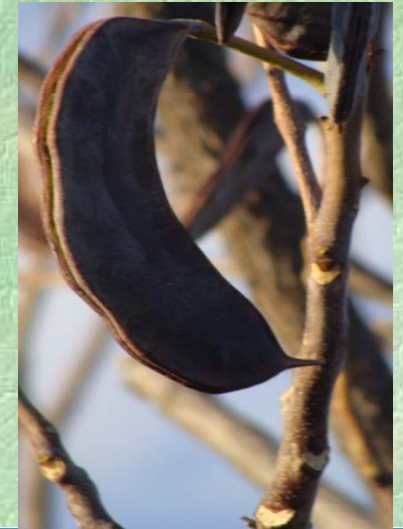
*Gymnocladus dioica*

**Kentucky Coffeetree - flowers**



*Gymnocladus dioica*

Kentucky Coffeetree - fruit





*Gymnocladus dioicus*

Kentucky Coffeetree - fall foliage



*Gymnocladus dioicus*

Kentucky Coffeetree – winter



# Deciduous Trees: Opposite leaf arrangement, simple leaves



Opposite leaf arrangement



Simple leaf- a single undivided leaf

*Acer saccharinum*  
**Silver maple**

*Acer saccharinum*  
Silver maple - leaves

underside



Cutleaf form



*Acer saccharinum*

**Silver maple - flowers**



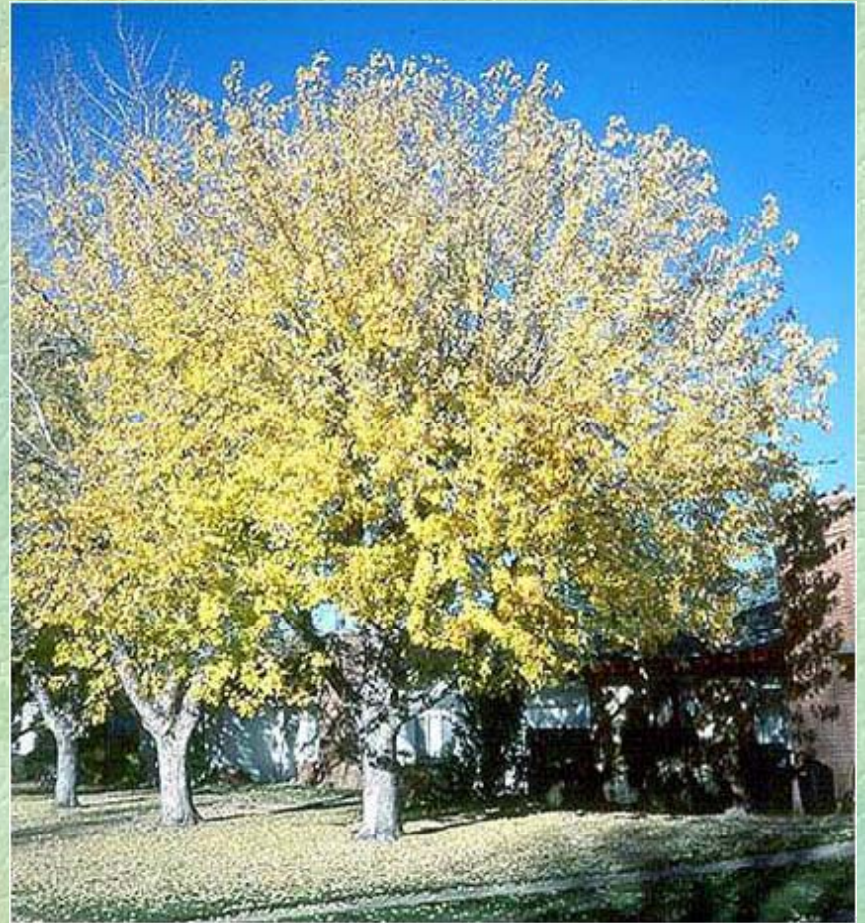
*Acer saccharinum*

Silver maple - fruit



*Acer saccharinum*

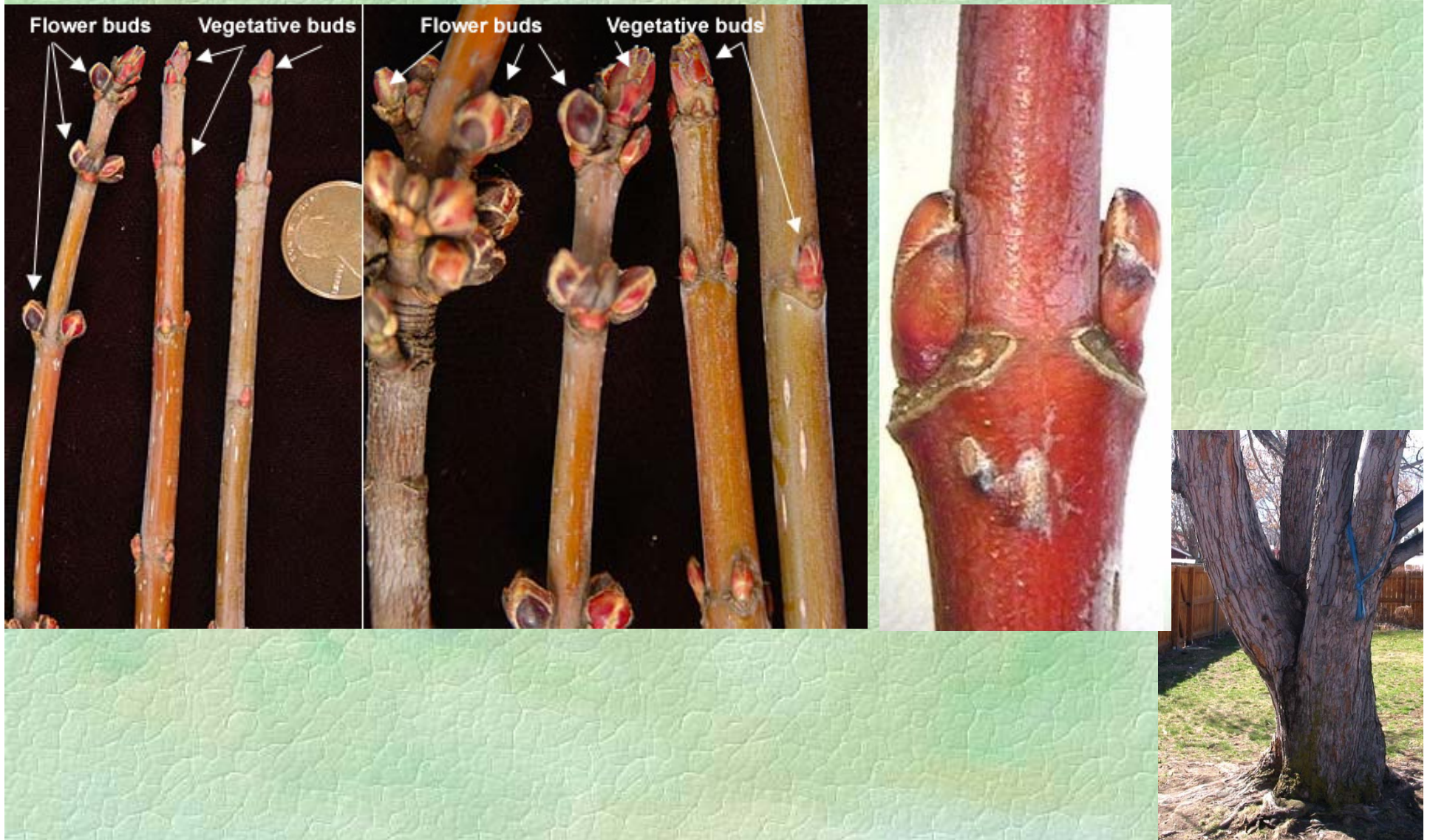
Silver maple - fall foliage





*Acer saccharinum*

Silver maple – winter ID



*Acer saccharinum*

Silver maple – winter ID



*Acer x freemanii 'Autumn Blaze'*

**Freeman Autumn Blaze Maple**

*Acer x freemanii* 'Autumn Blaze'

Freeman Autumn Blaze Maple - leaves



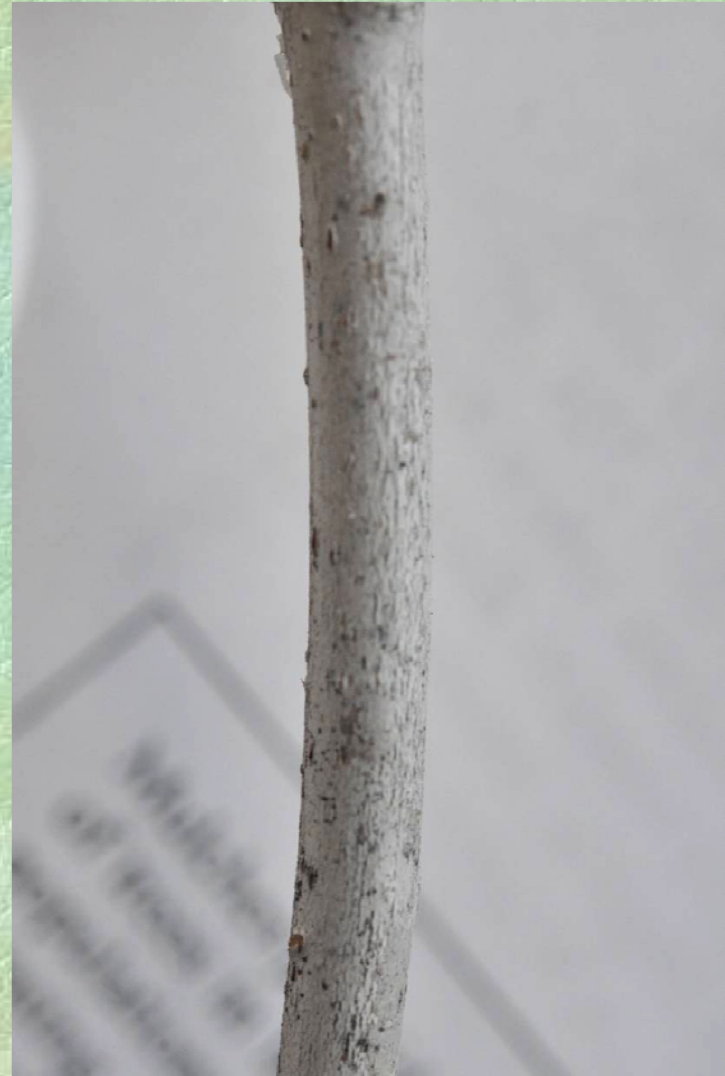
*Acer x freemanii* 'Autumn Blaze'

Freeman Autumn Blaze Maple – Fall Foliage



*Acer x freemanii* 'Autumn Blaze'

Freeman Autumn Blaze Maple – Twig



*Acer x freemanii* 'Autumn Blaze'

**Freeman Autumn Blaze Maple – Chlorosis**



*Acer tataricum*

**Tatarian Maple**



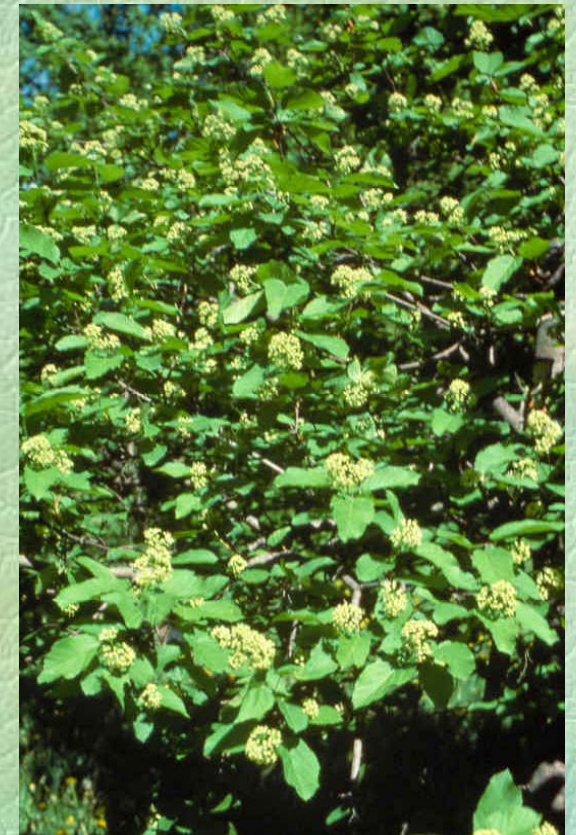
*Acer tataricum*

**Tatarian Maple - leaves**



*Acer tataricum*

**Tatarian Maple - flowers**



# HOT WINGS® Tatarian Maple

*Acer tataricum* 'GarAnn' and Fruit



*Acer tataricum*

Tatarian Maple - winter



*Acer tataricum*

Tatarian Maple - winter



*Acer platanoides*

**Norway Maple**

*Acer platanoides*

**Norway Maple - leaves**



*Acer platanoides*

Norway Maple - flowers





*Acer platanoides*

**Norway Maple - fruit**

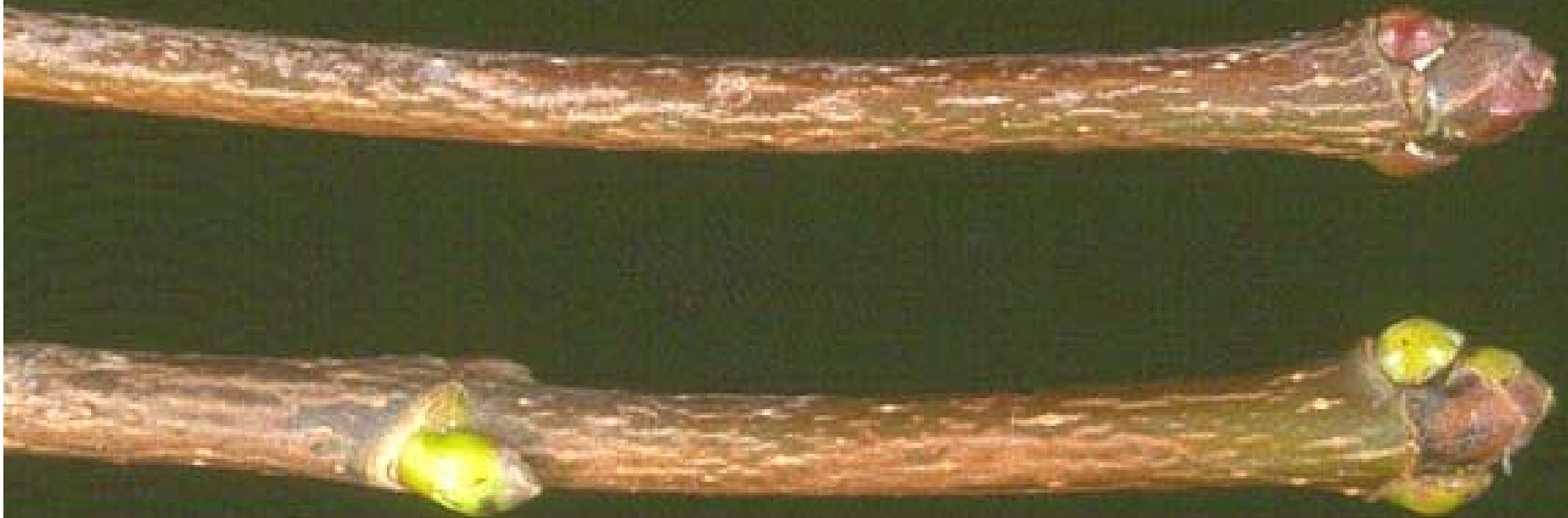


*Acer platanoides*  
**Norway Maple – fall color**



*Acer platanoides*

**Norway Maple - winter**



*Acer platanoides* 'Deborah'

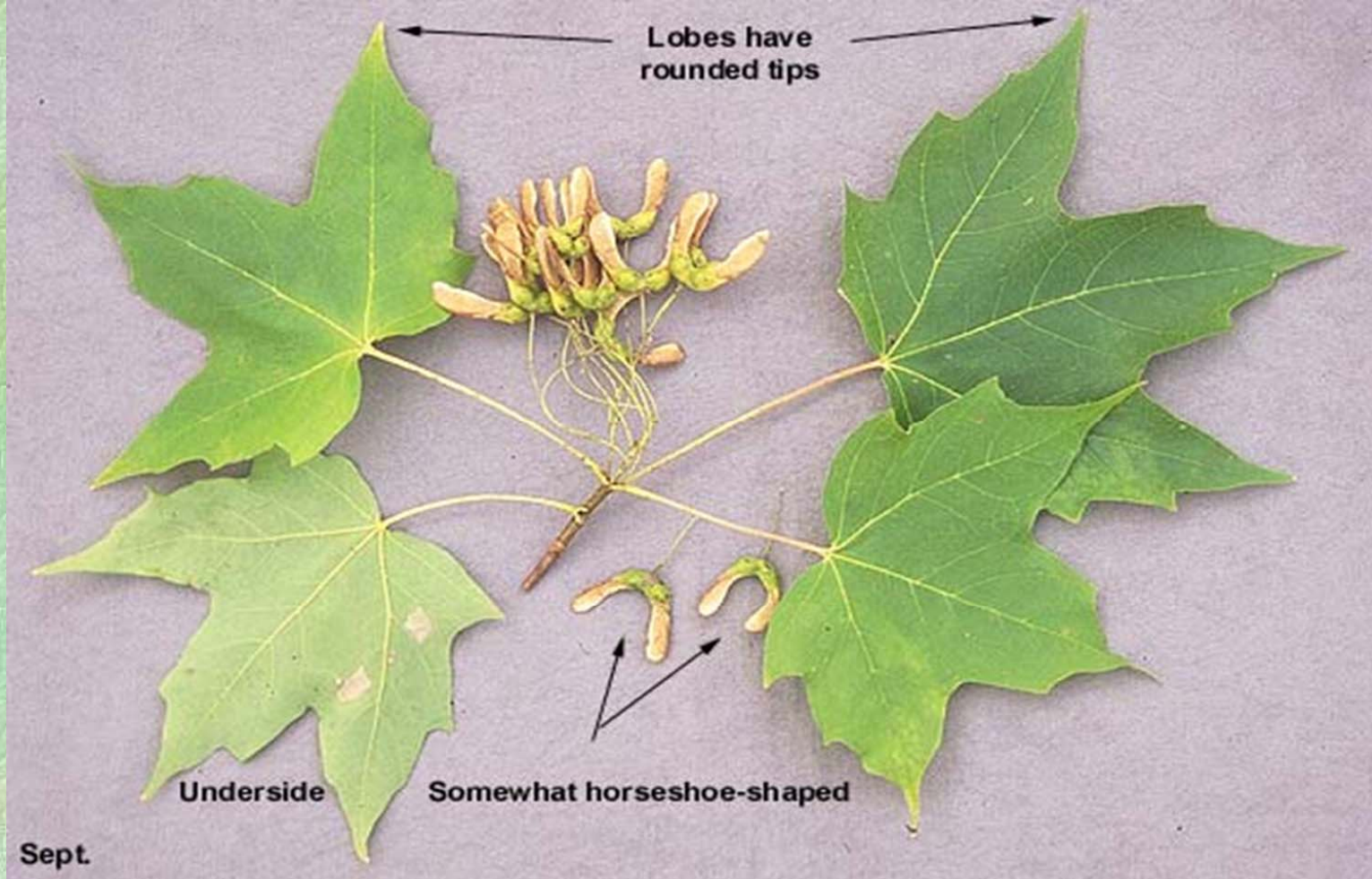


*Acer saccharum*  
**Sugar Maple**

*Acer saccharum*  
Sugar Maple - leaves



*Acer saccharum*  
Sugar Maple - Fruit



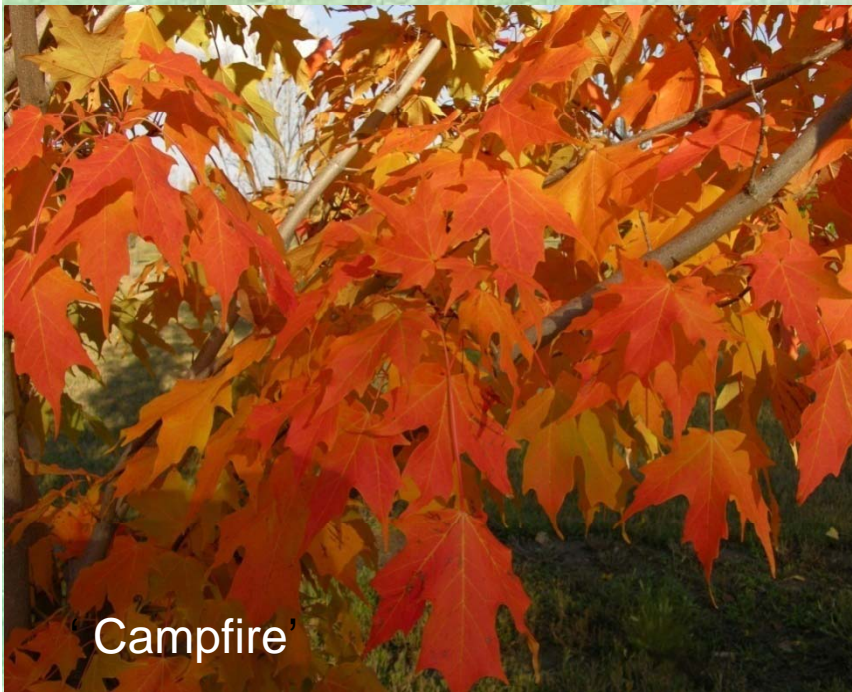
*Acer saccharum*

*Sugar Maple – Fall Foliage*





*Acer saccharum*  
Sugar Maple - Cultivars



'Campfire'



'Caddo'



*Acer saccharum*

*Sugar Maple – Winter ID*



## Question 3:

Trees of this Genus/species have alternate, pinnately compound leaves. In winter, they may be identified by their zig-zag twigs with buds hidden under swollen nodes. Reddish brown pod fruit can persist in winter.

a. *Gleditsia triacanthos inermis*

b. *Pyrus aucuparia*

c. *Gymnocladus dioica*

d. *Cercis canadensis*



## Question 3: Answer

Trees of this Genus/species have alternate, pinnately compound leaves. In winter, they may be identified by their zig-zag twigs with buds hidden under swollen nodes. Reddish brown pod fruit can persist in winter.

*a. Gleditsia triacanthos inermis*

*b. Pyrus aucuparia*

*c. Gymnocladus dioica*

*d. Cercis canadensis*



## Question 4:

This species of tree is identified in winter by its large, plump terminal bud and with leaf scars showing opposite leaf arrangement. It has simple, lobed leaves with a thick texture. Some cultivars have either maroon leaves or leaves that emerge purple and turn green as they mature.

- a. *Acer platanoides*
- b. *Acer saccharinum*
- c. *Acer tataricum*
- d. *Acer negundo*



## Question 4 answer:

This species of tree is identified in winter by its large, plump terminal bud and with leaf scars showing opposite leaf arrangement. It has simple, lobed leaves with a thick texture. Some cultivars have either maroon leaves or leaves that emerge purple and turn green as they mature.

*a. Acer platanoides*

*b. Acer saccharinum*

*c. Acer tataricum*

*d. Acer negundo*



# Deciduous Trees: Opposite leaf arrangement, compound leaves



Opposite leaf arrangement



Compound leaf-  
multiple leaflets per  
bud

*Aesculus glabra*  
**Ohio Buckeye**



*Aesculus glabra*

Ohio Buckeye - leaves

5 - 7 leaflets, palmately  
compound



*Aesculus glabra*

Ohio Buckeye - flowers



*Aesculus glabra*

Ohio Buckeye – fruit/seeds



*Aesculus glabra*

Ohio Buckeye - fall foliage



*Aesculus glabra*

Ohio Buckeye - winter



*Acer negundo*  
**Boxelder**

*Acer negundo*  
Boxelder— Leaves



<http://www.nativeohioplantlist.com/>

*Acer negundo*  
Boxelder— Fruit





*Acer negundo*  
*Boxelder— Fall Foliage*



*Acer negundo*

*Boxelder – Winter ID*



*Acer negundo*

*Boxelder – Winter ID*



*Fraxinus americana*

**White Ash**

*Fraxinus americana*

**White Ash - leaves**



*Fraxinus americana*

White Ash – male flowers and galls



*Fraxinus americana*

**White Ash – fruit (female trees only)**



*Fraxinus americana*

White Ash - fall foliage





*Fraxinus americana*

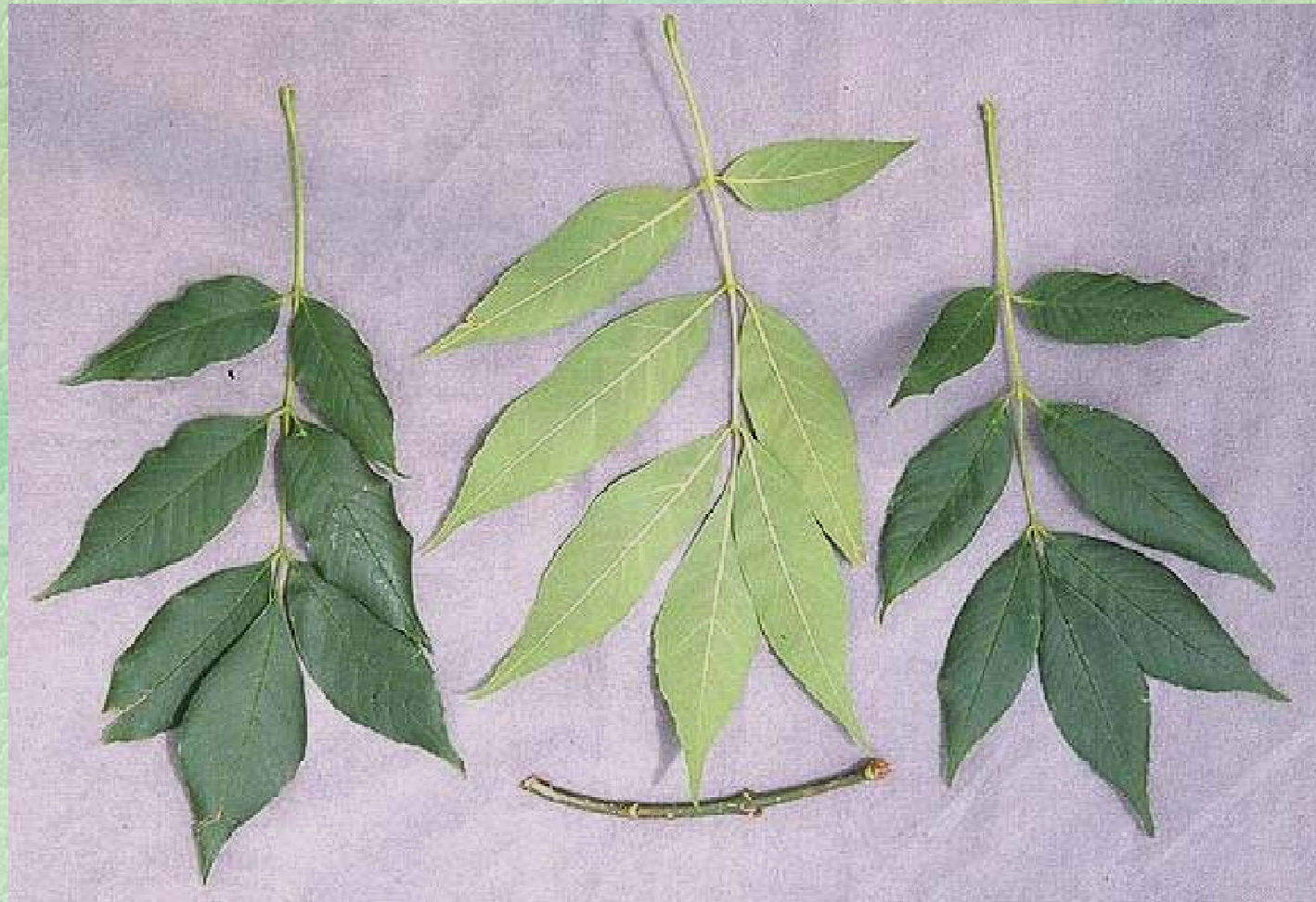
**White Ash - winter**

Buds "sit down inside" the  
horseshoe-shaped leaf scar



*Fraxinus pennsylvanica*  
**Green Ash**

*Fraxinus pennsylvanica*  
Green Ash - leaves



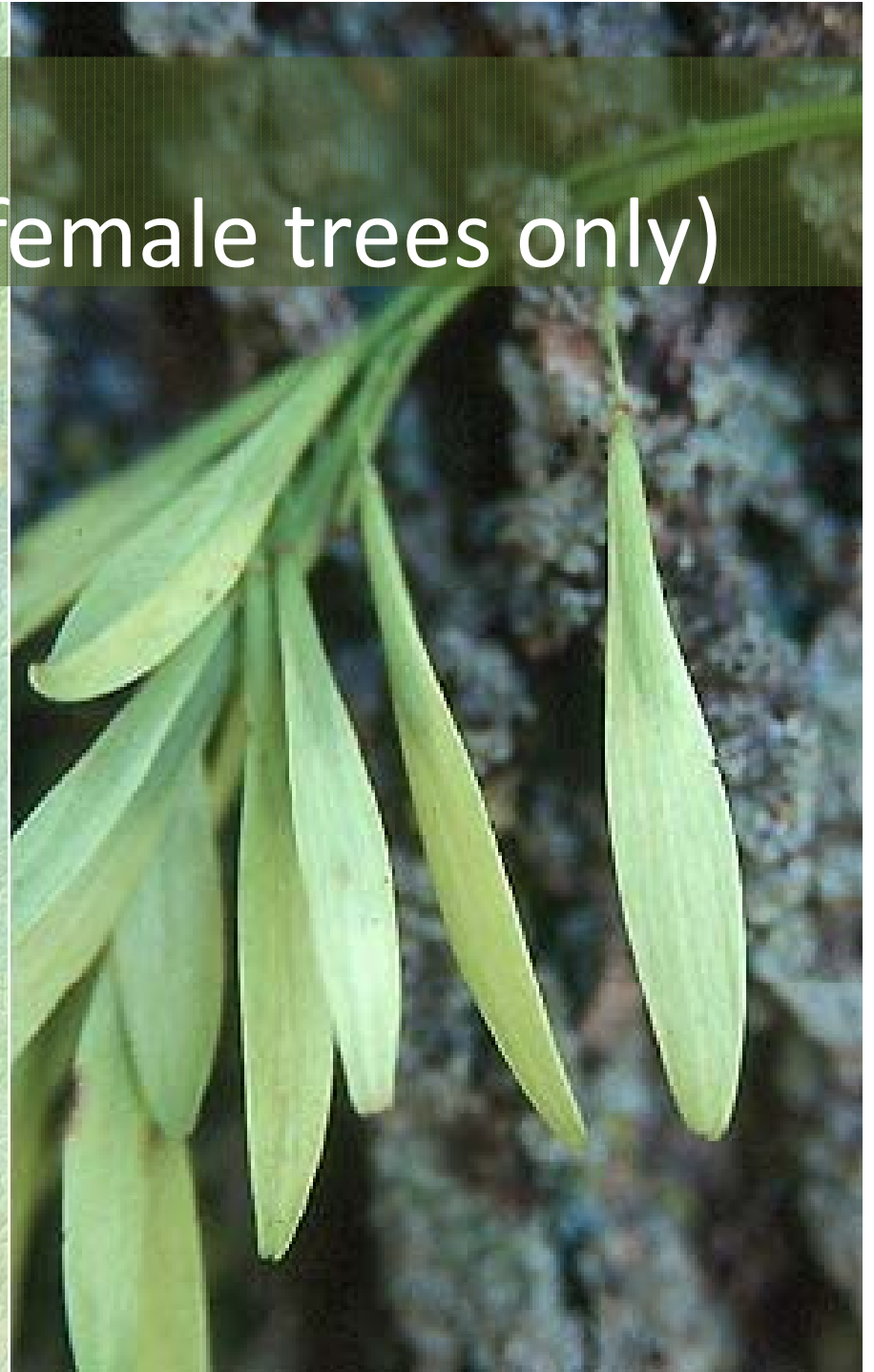
*Fraxinus pennsylvanica*

**Green Ash - male flowers, galls**



*Fraxinus pennsylvanica*

**Green Ash - fruit (female trees only)**



*Fraxinus pennsylvanica*  
Green Ash - fall foliage



*Fraxinus pennsylvanica*

Green Ash – winter ID



Buds "sit on" leaf scars

## Question 5:

With opposite, pinnately compound leaves, these large landscape trees have yellow to deep purple/maroon fall color. Buds are a tannish brown and are set down into the leaf scar.

- a. *Fraxinus pennsylvanica*
- b. *Fraxinus americana*
- c. *Acer negundo*
- d. *Aesculus glabra*





## Question 5: Answer

With opposite, pinnately compound leaves, these large landscape trees have yellow to deep purple/maroon fall color. Buds are a tannish brown and are set down into the leaf scar.

*a. Fraxinus pennsylvanica*

*b. Fraxinus americana*

*c. Acer negundo*

*d. Aesculus glabra*



## Question 6

This fast-growing landscape tree has opposite, pinnately compound leaves in summer and waxy purplish twigs with a white bloom in winter. Bark is gray/brown with ridges and furrows.

- a. *Acer tataricum*
- b. *Aesculus glabra*
- c. *Fraxinus pennsylvanica*
- d. *Acer negundo*



## Question 6: Answer

This fast-growing landscape tree has opposite, pinnately compound leaves in summer and waxy purplish twigs with a white bloom in winter. Bark is gray/brown with ridges and furrows.

- a. *Acer tataricum*
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- c. *Fraxinus pennsylvanica*
- d. *Acer negundo*



# Conifers: Leaves scale or awl-like



Scale type leaves



Awl type leaves

*Juniperus scopulorum*

**Rocky Mountain Juniper**

*Juniperus scopulorum*

**Rocky Mountain Juniper - leaves**



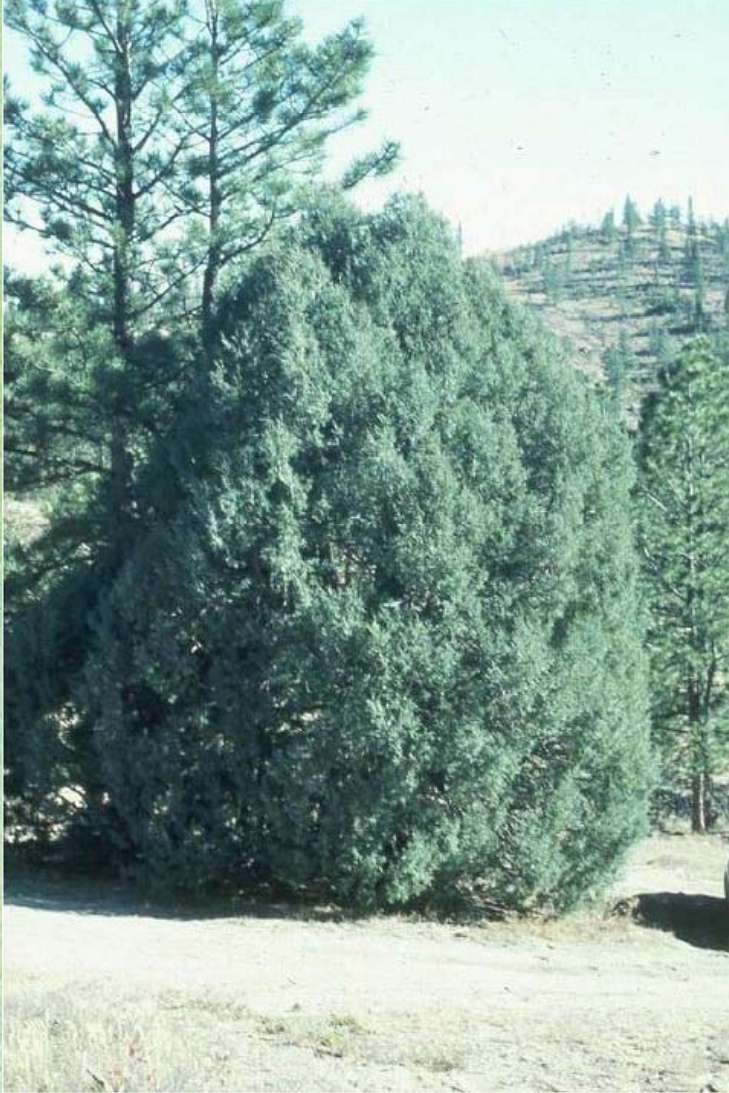
*Juniperus scopulorum*

**Rocky Mountain Juniper - color**



*Juniperus scopulorum*

**Rocky Mountain Juniper - size**





*Juniperus scopulorum*

**Rocky Mountain Juniper - fruit**



*Thuja occidentalis*

**Eastern Arborvitae, American Arborvitae**

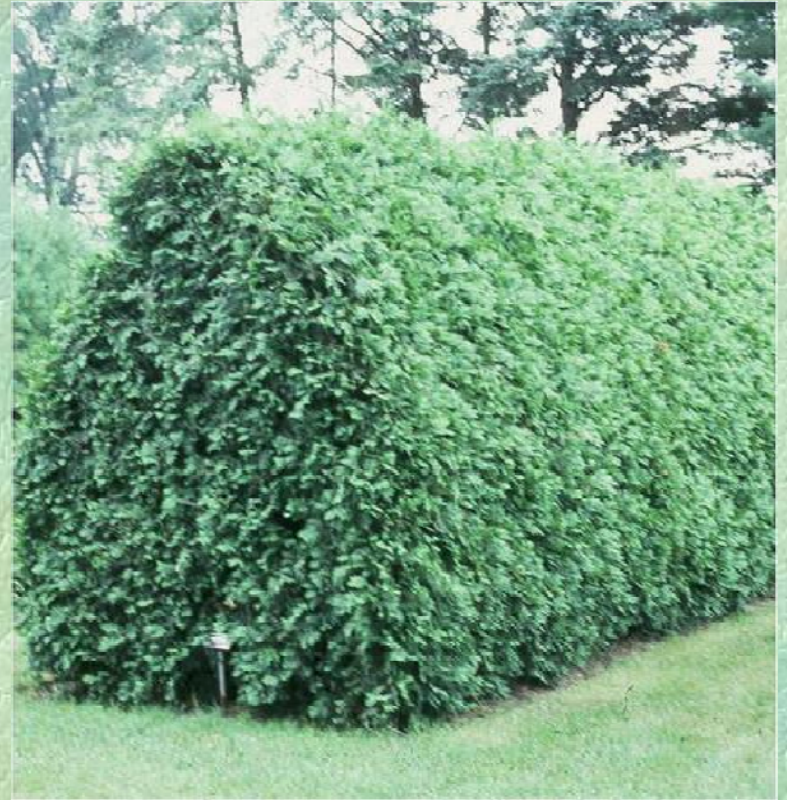
*Thuja occidentalis*

Eastern Arborvitae, American Arborvitae - leaves



*Thuja occidentalis*

Eastern Arborvitae, American Arborvitae - habit



*Thuja occidentalis*

Eastern Arborvitae, American Arborvitae - fruit



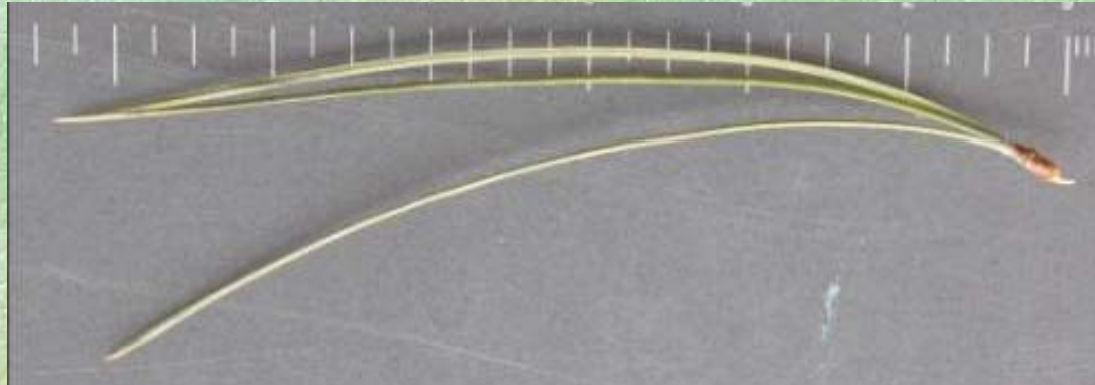
*Thuja occidentalis*

Eastern Arborvitae, American Arborvitae - winter



**Conifers: Needles in  
bundles, woody cones**

# Conifers: Needle like leaves in bundles





*Pinus aristata*

**Bristlecone Pine**

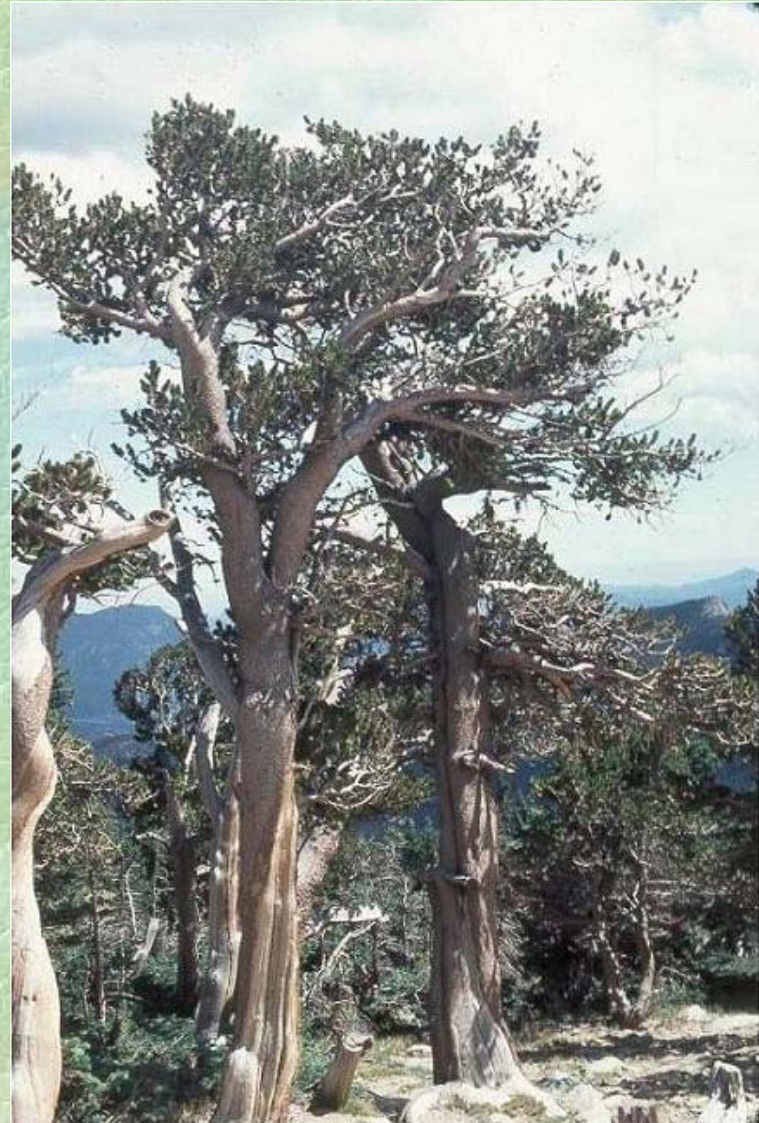
*Pinus aristata*

**Bristlecone Pine - leaves**



*Pinus aristata*

**Bristlecone Pine – habit/size**



*Pinus aristata*

**Bristlecone Pine - cone**



*Pinus aristata*

**Bristlecone Pine**



*Pinus edulis*

**Pinyon Pine**

*Pinus edulis*

Pinyon Pine - leaves



*Pinus edulis*

Pinyon Pine – color, habit





*Pinus edulis*

Pinyon Pine - size



*Pinus edulis*

**Pinyon Pine - male flowers**



*Pinus edulis*

Pinyon Pine - fruit



*Pinus edulis*

Pinyon Pine - winter



*Pinus mugo*

**Mugo Pine, Swiss Mountain Pine**

*Pinus mugo*

Mugo Pine, Swiss Mountain Pine - leaves



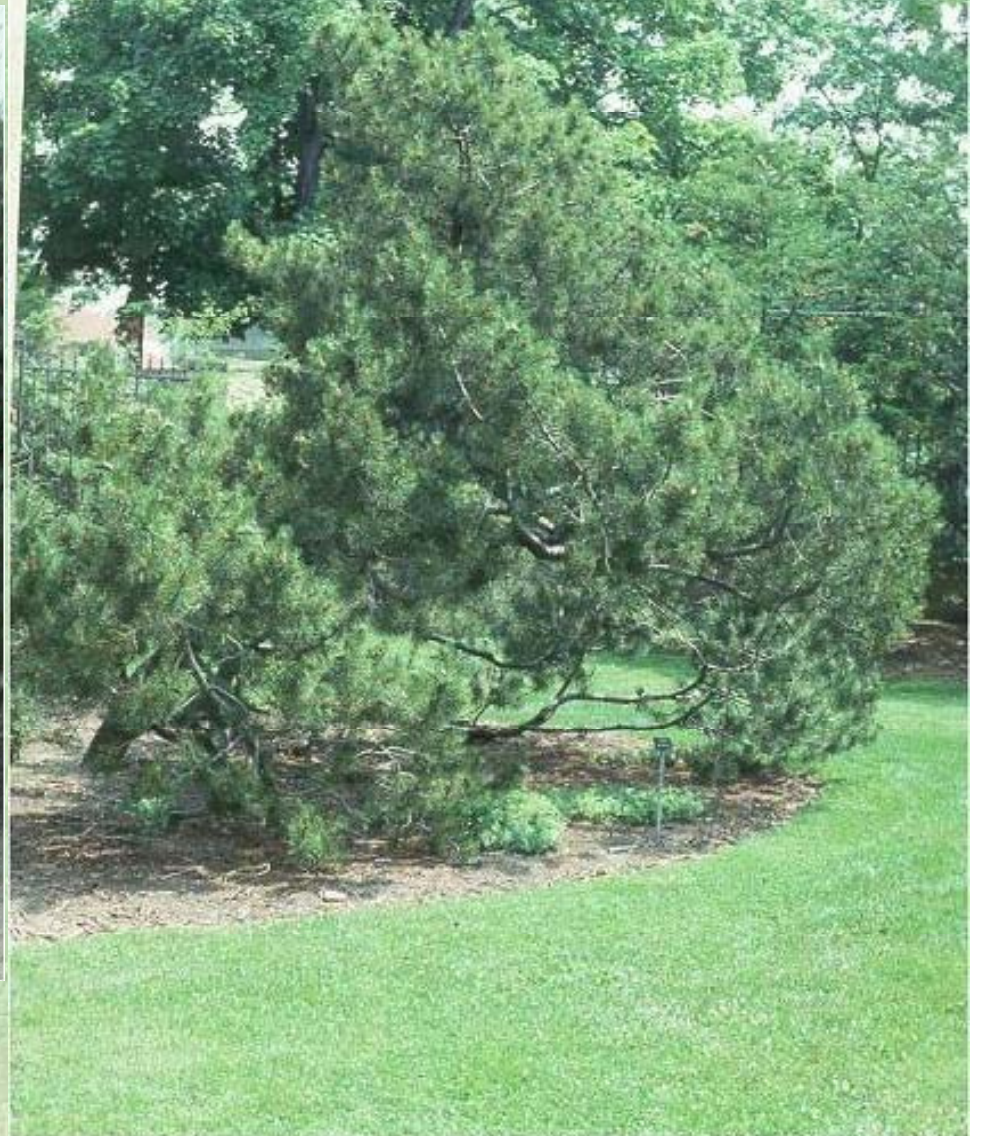
*Pinus mugo*

Mugo Pine, Swiss Mountain Pine - color



*Pinus mugo*

Mugo Pine, Swiss Mountain Pine - size





*Pinus mugo*

Mugo Pine, Swiss Mountain Pine - fruit



*Pinus nigra*

**Austrian Pine**

*Pinus nigra*

**Austrian Pine – leaves, buds**



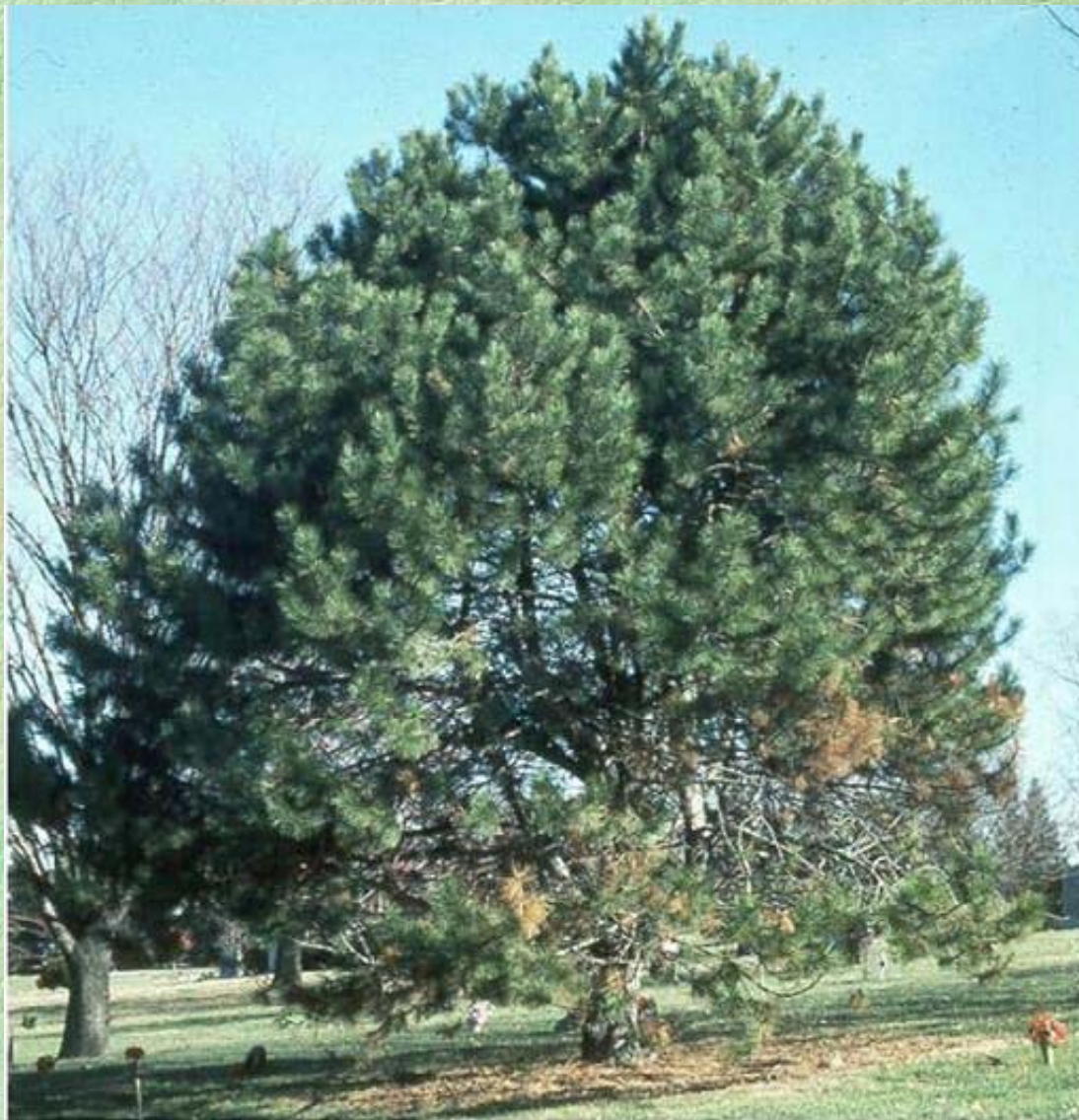
*Pinus nigra*

**Austrian Pine –buds**



*Pinus nigra*

**Austrian Pine - size**



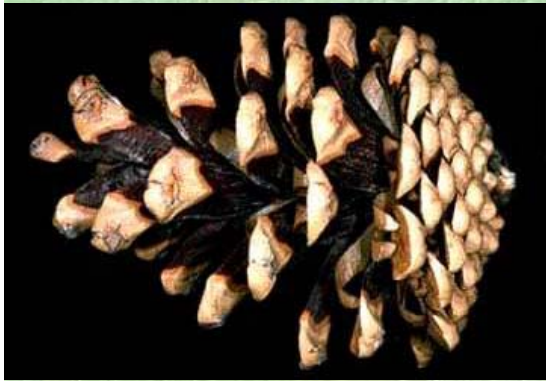
*Pinus nigra*

**Austrian Pine** – leaves, immature cones



*Pinus nigra*

# Austrian Pine



Grayish-black  
bark



Buds more whitish



*Pinus ponderosa*

**Ponderosa Pine, Western Yellow Pine**



*Pinus ponderosa*

**Ponderosa Pine, Western Yellow Pine - leaves**



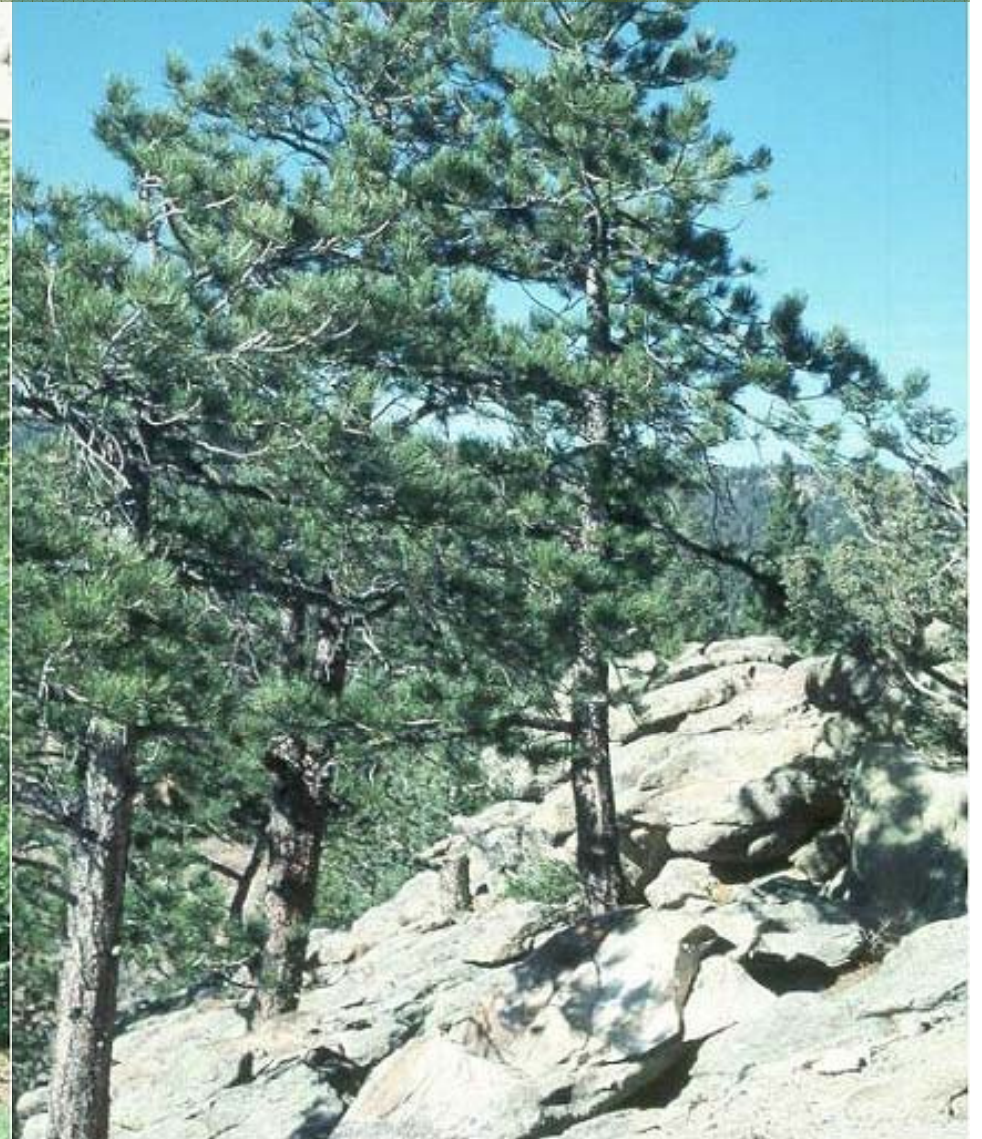
*Pinus ponderosa*

**Ponderosa Pine, Western Yellow Pine - color**



*Pinus ponderosa*

**Ponderosa Pine, Western Yellow Pine - size**



*Pinus ponderosa*

**Ponderosa Pine, Western Yellow Pine - winter**



*Pinus ponderosa*

Ponderosa Pine, Western Yellow Pine - winter



# *Pinus nigra* vs. *Pinus ponderosa*



Ponderosa Pine



Austrian Pine

# *Pinus nigra* vs. *Pinus ponderosa*

Austrian Pine



Ponderosa Pine



*Pinus sylvestris*  
**Scotch Pine**



*Pinus sylvestris*

Scotch Pine - leaves



*Pinus sylvestris*

Scotch Pine - color



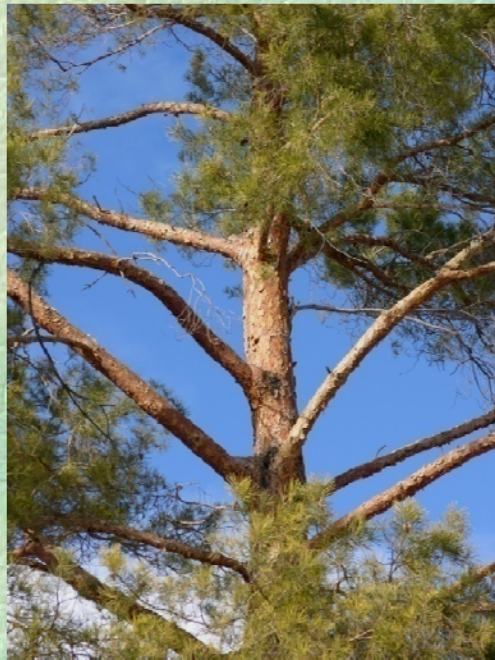
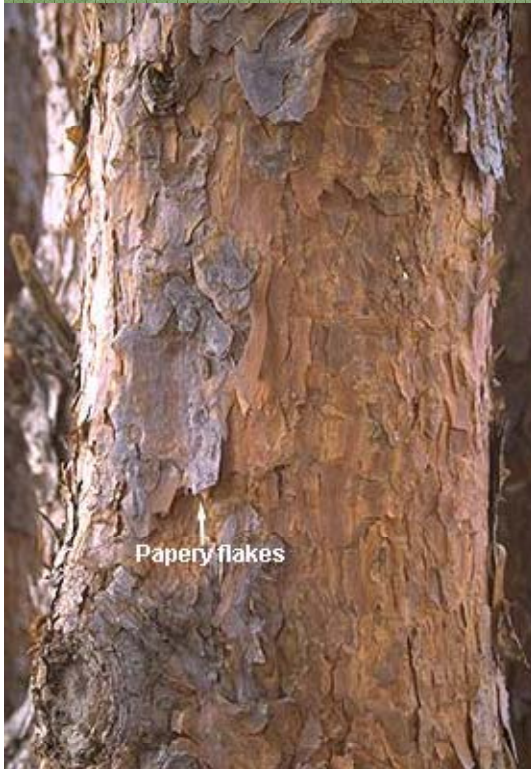
*Pinus sylvestris*

Scotch Pine - size



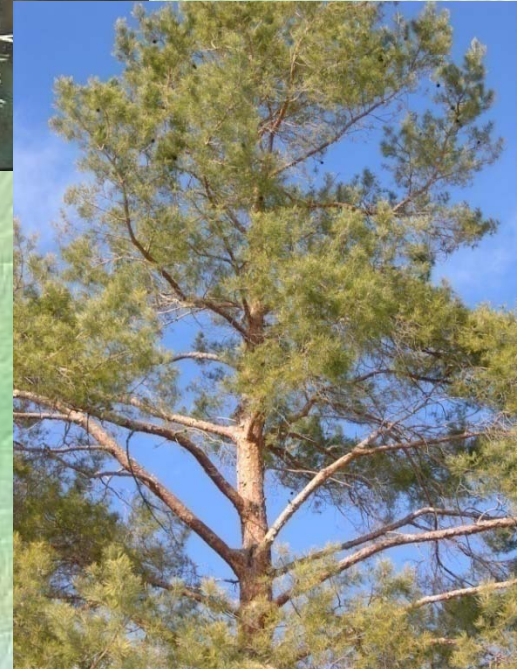
*Pinus sylvestris*

Scotch Pine - bark



*Pinus sylvestris*

Scotch Pine - winter



**Conifers: Singular needles**

# Conifers: Singular needle like leaves



*Picea pungens*

**Colorado Spruce**



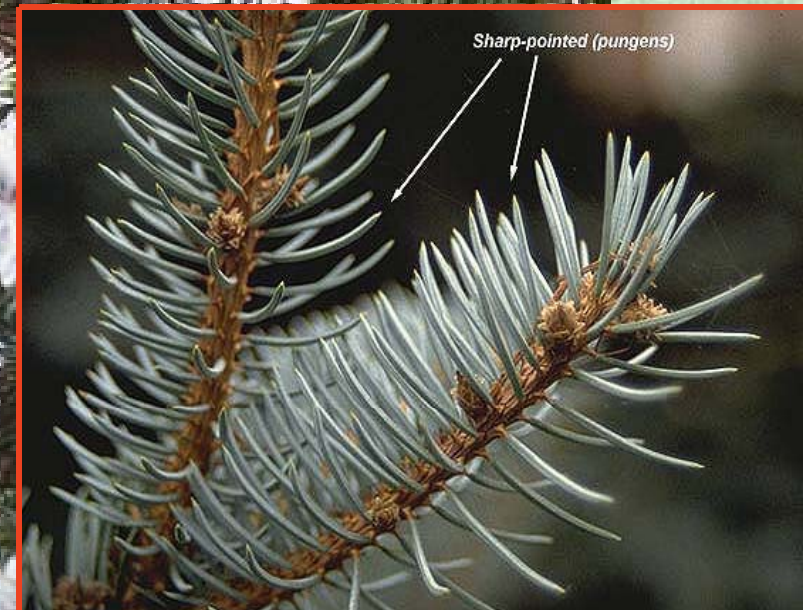
*Picea pungens*

Colorado Spruce - leaves



*Picea pungens*

# Colorado Spruce - color



*Picea pungens*

Colorado Spruce - size

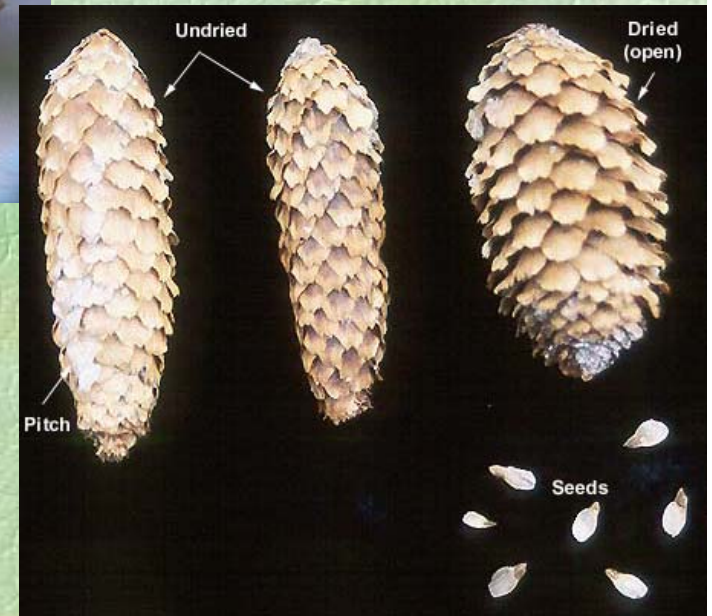


*Picea pungens*

# Colorado Spruce – cones, buds



“rose” buds



*Picea pungens*

## Colorado Spruce - galls



Cooley Spruce Galls  
CSU Extension fact sheet # 5.534



*Abies concolor*

**White Fir, Concolor Fir**

*Abies concolor*

**White Fir, Concolor Fir - leaves**



*Abies concolor*

**White Fir, Concolor Fir - color**





*Abies concolor*

**White Fir, Concolor Fir - size**



*Abies concolor*

**White Fir – leaves and buds**



*Abies concolor*

**White Fir – cones**



*Pseudotsuga menziesii*  
**Douglas Fir**

*Pseudotsuga menziesii*  
**Douglas fir – leaves**



*Pseudotsuga menziesii*  
Douglas fir – color



*Pseudotsuga menziesii*  
Douglas fir – size



*Pseudotsuga menziesii*

**Douglas fir – leaves, buds**





*Pseudotsuga menziesii*  
Douglas fir – cones



## Question 7

A native evergreen, this tree has glaucous blue to green scale-like leaves, with foliage densely set on branches. Cone fruit is a globular light to dark blue. Size and growth habit can be variable; narrow to pyramidal.

- a. *Thuja occidentalis*
- b. *Juniperus scopularum*
- c. *Pinus edulis*
- d. *Juniperus monosperma*



## Question 7: Answer

A native evergreen, this tree has glaucous blue to green scale-like leaves, with foliage densely set on branches. Cone fruit is a globular light to dark blue. Size and growth habit can be variable; narrow to pyramidal.

- a. *Thuja occidentalis*
- b. *Juniperus scopularum*
- c. *Pinus edulis*
- d. *Juniperus monosperma*



## Question 8:

This large conifer has stiff, dark green needles in pairs. It is fast-growing and has a dense, oval growth habit with branching to ground. Cones are 2-3 inches long.

- a. *Pinus mugo*
- b. *Pinus ponderosa*
- c. *Pinus edulis*
- d. *Pinus nigra*



## Question 8: Answer

This large conifer has stiff, dark green needles in pairs. It is fast-growing and has a dense, oval growth habit with branching to ground. Cones are 2-3 inches long.

- a. *Pinus mugo*
- b. *Pinus ponderosa*
- c. *Pinus edulis*
- d. *Pinus nigra*



**Large Deciduous Shrubs  
(+8 feet tall at maturity)**

*Amelanchier* spp.  
**Serviceberry**

*Amelanchier* spp.

**Serviceberry - leaves**





*Amelanchier* spp.  
Serviceberry - flowers



*Amelanchier* spp.

**Serviceberry - fruit**

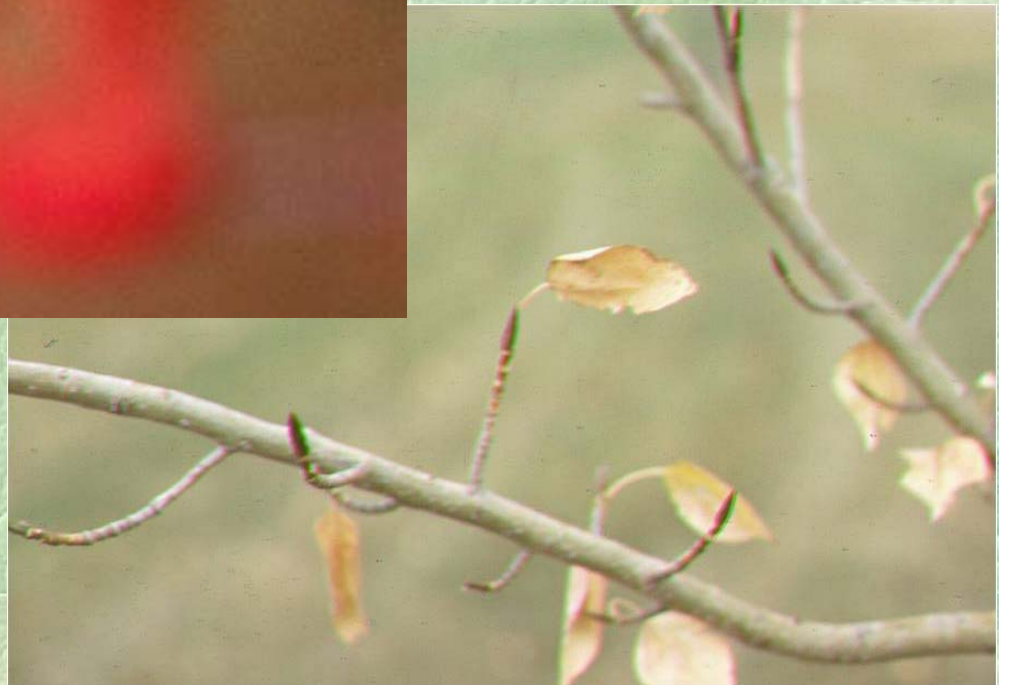


*Amelanchier* spp.

**Serviceberry - fall foliage**



*Amelanchier* spp.  
Serviceberry - winter



*Syringa vulgaris*

**Common Lilac**

*Syringa vulgaris*

**Common Lilac - leaves**



*Syringa vulgaris*

**Common Lilac - flowers**



*Syringa vulgaris*

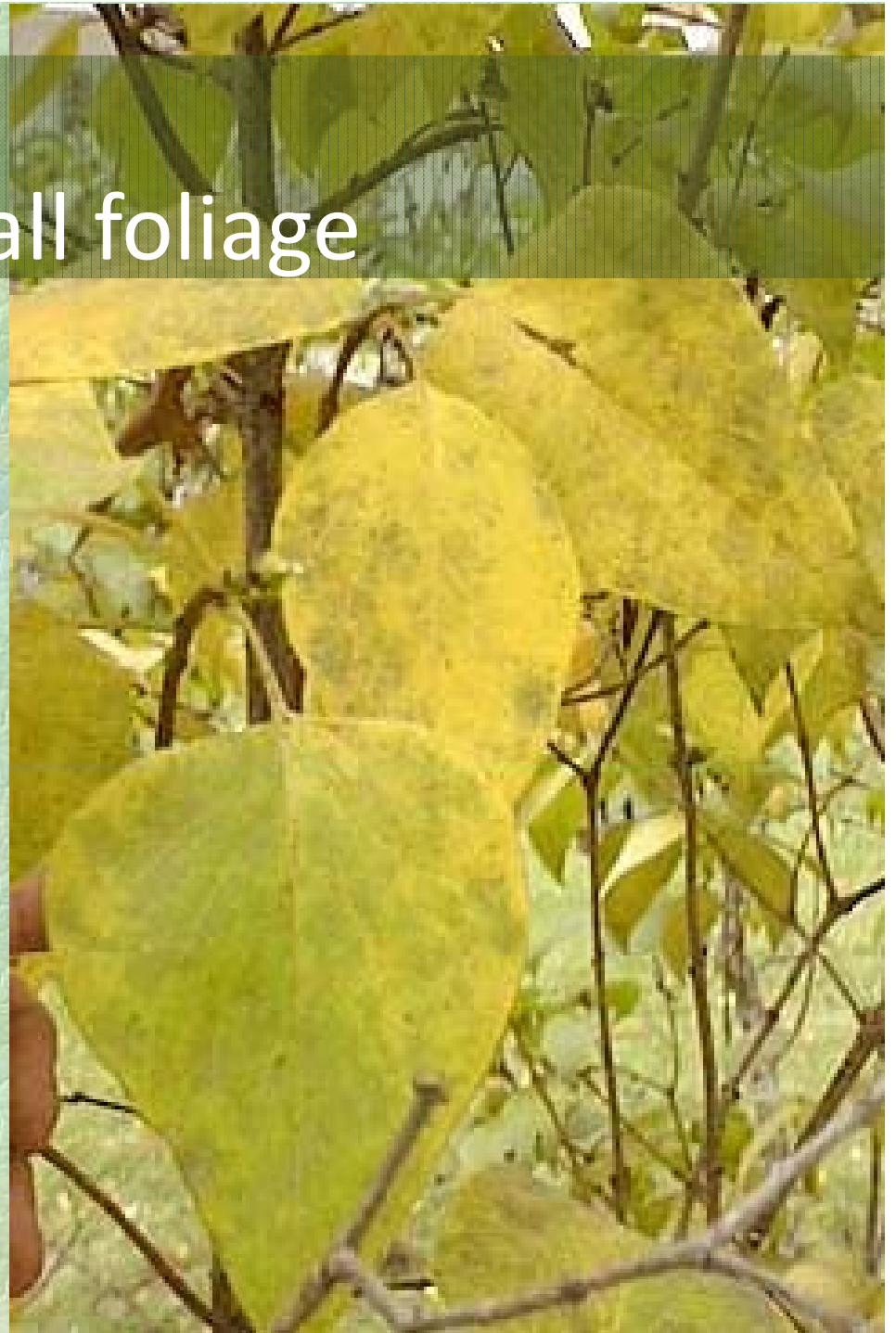
Common Lilac - fruit





*Syringa vulgaris*

**Common Lilac - fall foliage**



*Syringa vulgaris*

**Common Lilac - winter**



*Viburnum lantana*

**Wayfaringtree Viburnum**

*Viburnum lantana*

**Wayfaringtree Viburnum - leaves**



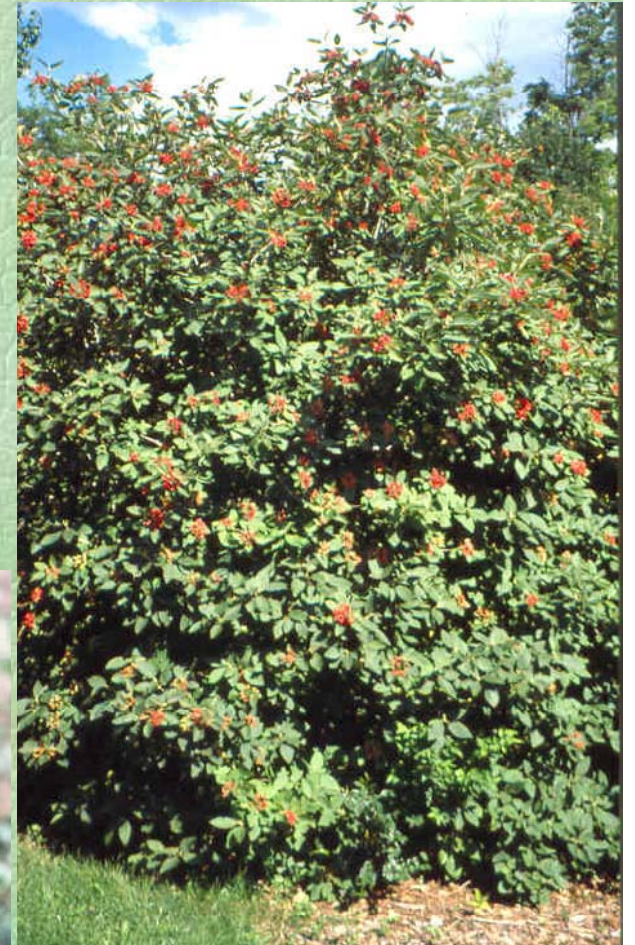
*Viburnum lantana*

Wayfaringtree Viburnum - flowers



*Viburnum lantana*

Wayfaringtree Viburnum - fruit



*Viburnum lantana*

**Wayfaringtree Viburnum - buds**



*Viburnum lantana*

Wayfaringtree Viburnum - stem





*Viburnum lantana*

Wayfaringtree Viburnum - fall



*Viburnum lantana*

Wayfaringtree Viburnum - winter



*Viburnum lentago*

**Nannyberry Viburnum**

*Viburnum lentago*

**Nannyberry Viburnum - leaves**



*Viburnum lentago*

**Nannyberry Viburnum - flowers**



*Viburnum lentago*

**Nannyberry Viburnum - fruit**



*Viburnum lentago*

Nannyberry Viburnum - buds



*Viburnum lentago*

**Nannyberry Viburnum - stem**





*Viburnum lentago*

**Nannyberry Viburnum - fall**



*Viburnum lentago*

**Nannyberry Viburnum - winter**



*Viburnum trilobum* 'Compactum'  
Compact American Cranberrybush  
Viburnum

*Viburnum trilobum* 'Compactum'  
Compact American Cranberrybush Viburnum

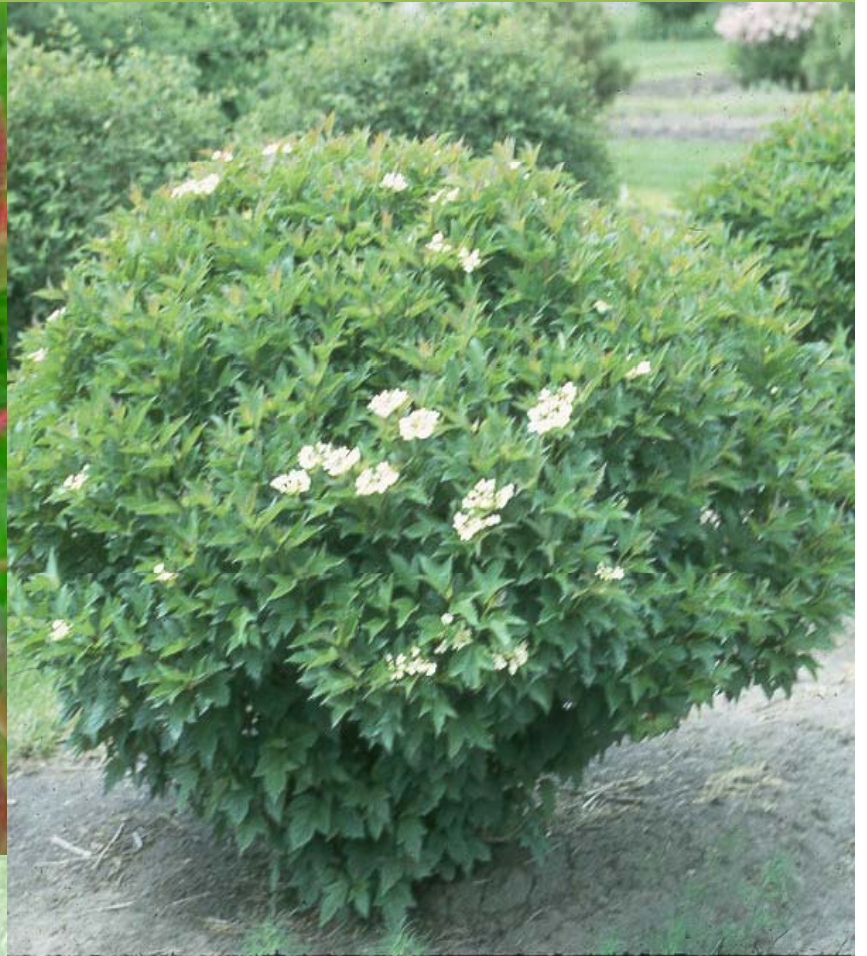


*Viburnum trilobum* 'Compactum'

Compact American Cranberrybush Viburnum - Leaves



*Viburnum trilobum* 'Compactum'  
Compact American Cranberrybush Viburnum - Flowers



*Viburnum trilobum* 'Compactum'

Compact American Cranberrybush Viburnum - Fruit



*Viburnum trilobum* 'Compactum'

Compact American Cranberrybush Viburnum – Fall color





*Viburnum trilobum* 'Compactum'  
Compact American Cranberrybush Viburnum – Mite damage



*Viburnum trilobum* 'Compactum'

Compact American Cranberrybush Viburnum - Buds



*Ligustrum vulgare* 'Cheyenne'  
**Cheyenne Privet**

*Ligustrum vulgare* 'Cheyenne'  
Cheyenne Privet - leaves



*Ligustrum vulgare* 'Cheyenne'  
Cheyenne Privet - buds



*Ligustrum vulgare* 'Cheyenne'  
Cheyenne Privet - flowers



*Ligustrum vulgare* 'Cheyenne'  
Cheyenne Privet - fruit



Forsythia x intermedia

**Border Forsythia**



*Forsythia x intermedia*

**Border Forsythia - Leaves**



*Forsythia x intermedia*

**Border Forsythia - Flowers**



*Forsythia x intermedia*  
**Border Forsythia**

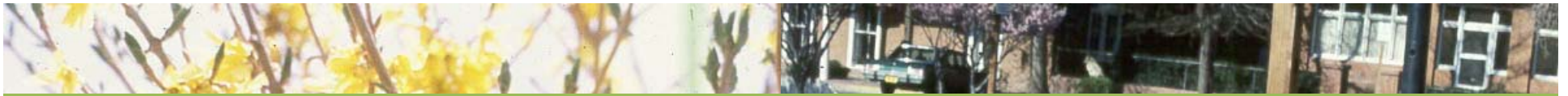


*Forsythia x intermedia*  
**Border Forsythia**



*Forsythia x intermedia*  
**Border Forsythia**





*Forsythia x intermedia*  
**Border Forsythia**



*Forsythia x intermedia*

**Border Forsythia - Buds**



*Forsythia x intermedia*

**Border Forsythia – Fall color**





*Forsythia x intermedia*

**Border Forsythia – Growth habit**



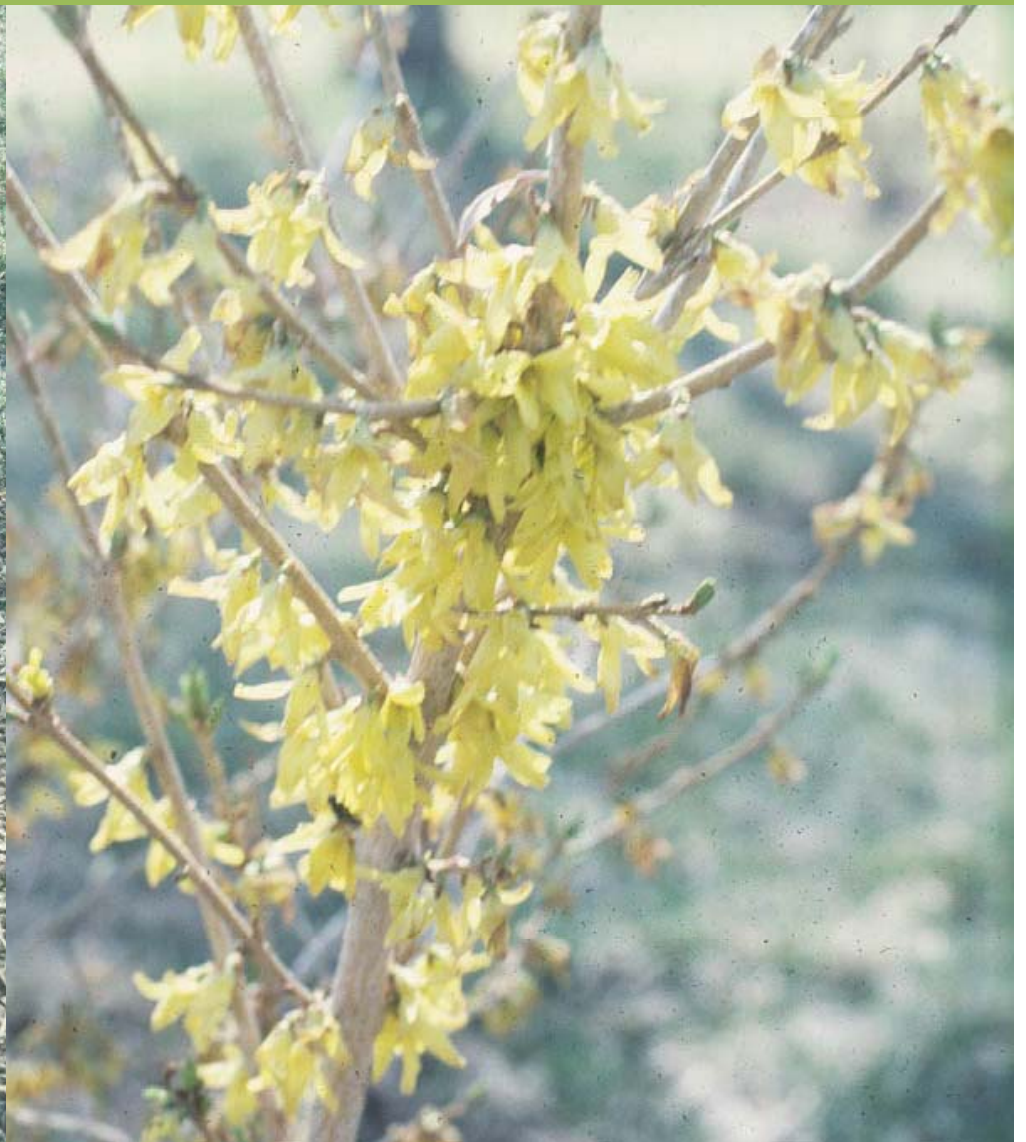
*Forsythia x intermedia* 'Meadowlark'  
**Meadowlark Forsythia**



*Forsythia x intermedia* 'Beatrix Ferrand'  
**Beatrix Ferrand Forsythia**



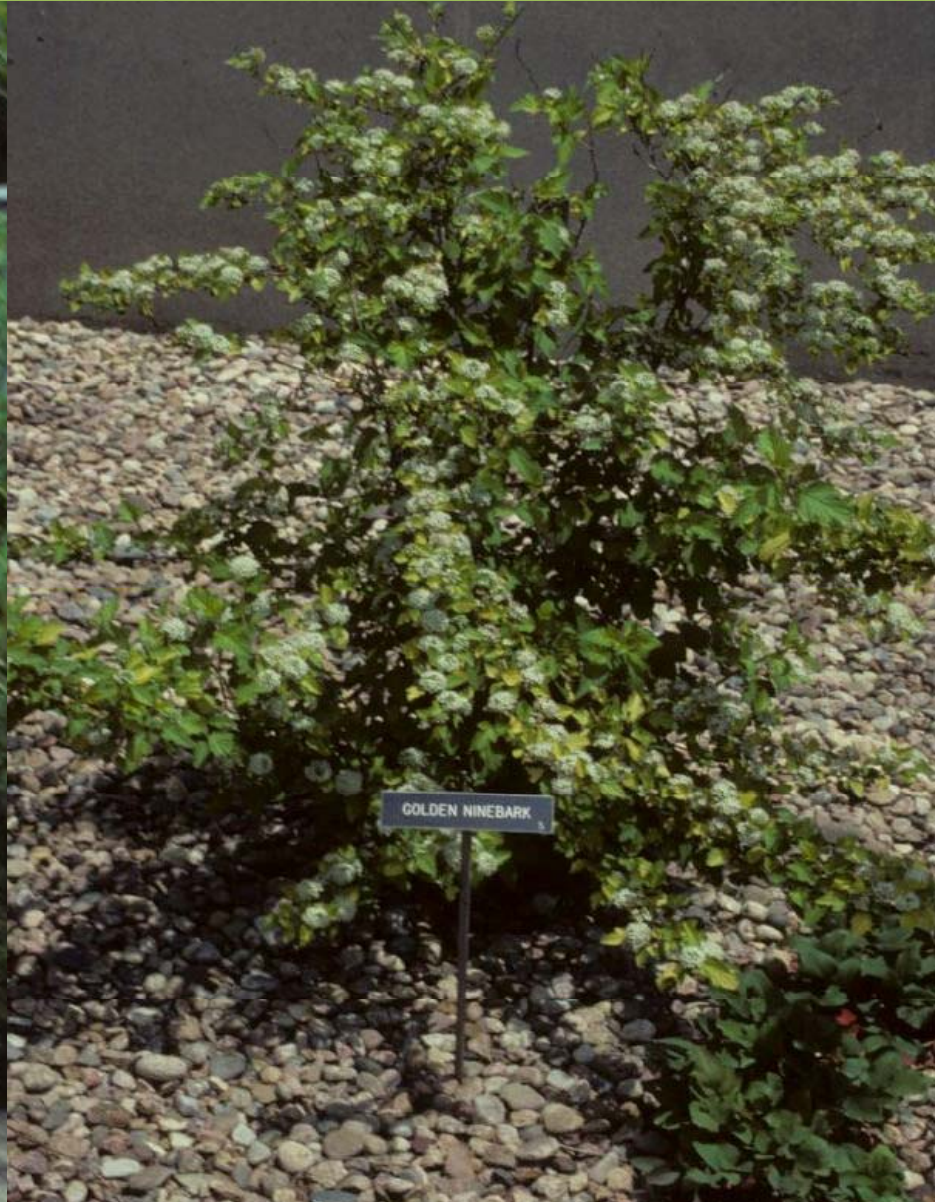
*Forsythia x intermedia* 'Sunrise'  
**Sunrise Forsythia**



**Physocarpus opulifolius**

**Ninebark**

*Physocarpus opulifolius*-  
Ninebark – Growth habit



*Physocarpus opulifolius-*  
*Ninebark – Winter twigs*



*Physocarpus opulifolius*-  
Ninebark - Twigs





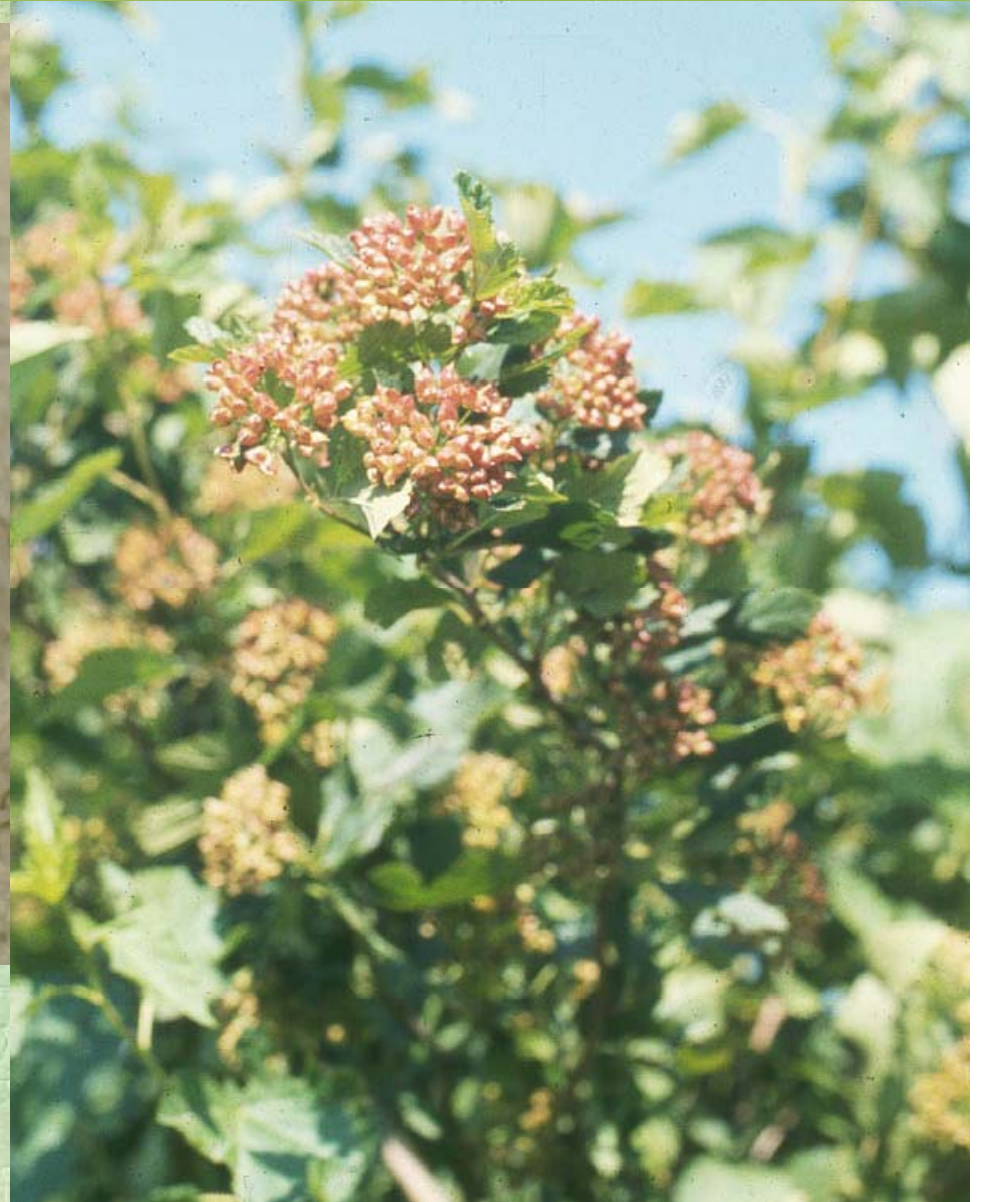
*Physocarpus opulifolius*-  
Ninebark - Leaves



*Physocarpus opulifolius*-  
Ninebark – Fall color



*Physocarpus opulifolius*-  
Ninebark – Flowers, Fruit



*Physocarpus opulifolius*-  
Ninebark - Fruit



*Physocarpus opulifolius*-  
Ninebark – Fruit, Winter texture



*Physocarpus opulifolius* ‘Seward’-  
Summerwine Ninebark



*Physocarpus opulifolius* 'Monlo' -  
Diabolo Ninebark



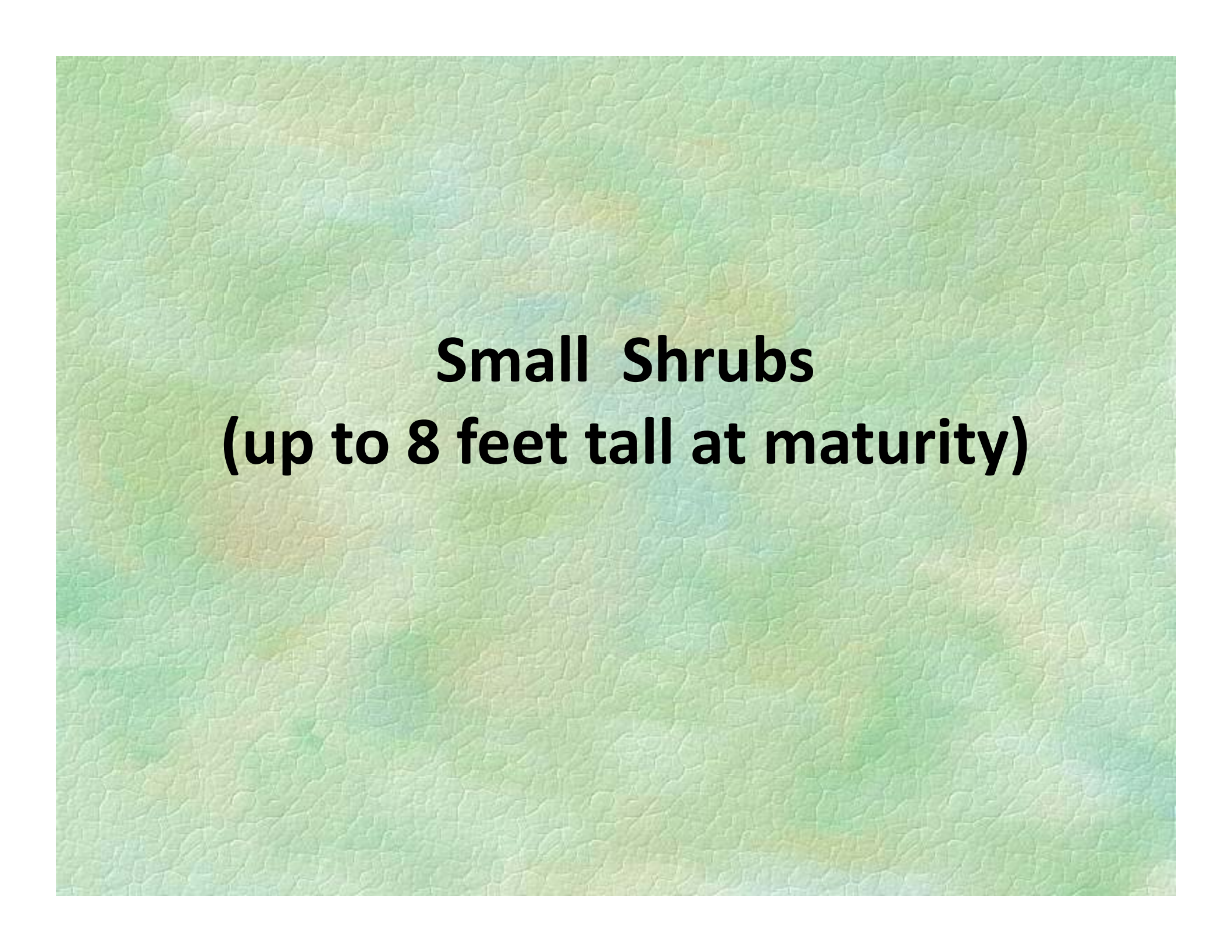
*Physocarpus opulifolius* 'Monlo'-  
*Diabolo Ninebark*





*Physocarpus opulifolius* 'Luteus'-  
Golden Ninebark





**Small Shrubs  
(up to 8 feet tall at maturity)**

*Berberis thunbergii*  
**Japanese Barberry**

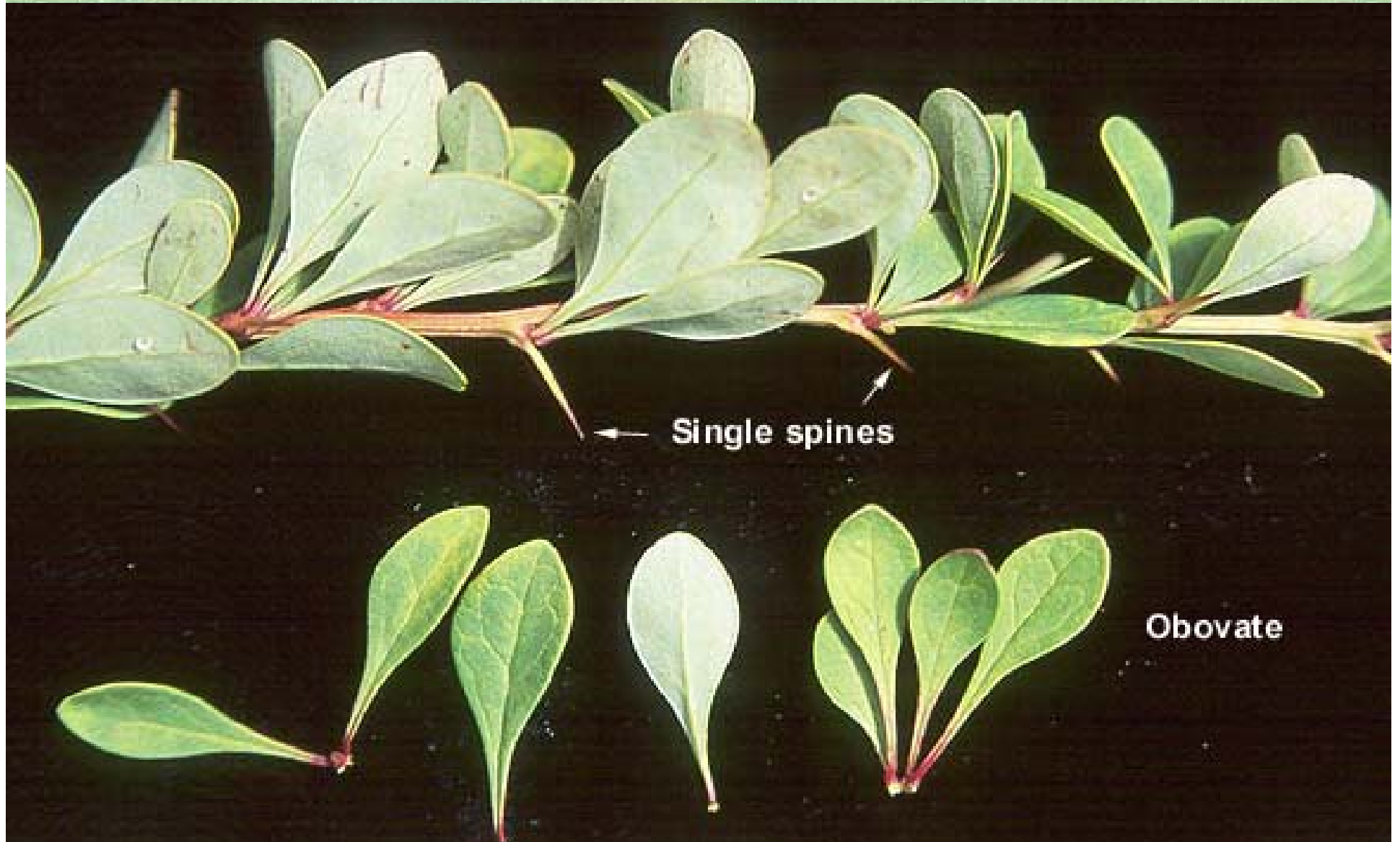
*Berberis thunbergii*

**Japanese Barberry - sheared hedge**



*Berberis thunbergii*

**Japanese Barberry – leaves, twigs**



*Berberis thunbergii*

Japanese Barberry – flowers, leaves



*Berberis thunbergii*

**Japanese Barberry - fruit**



*Berberis thunbergii*

**Japanese Barberry – fall color**





*Berberis thunbergii*  
Japanese Barberry - winter



*Euonymus alatus* 'Compactus'

Compact Winged Euonymus

*Euonymus alatus* 'Compactus'  
Compact Winged Euonymus – size, habit



*Euonymus alatus* 'Compactus'  
Compact Winged Euonymus - leaves



*Euonymus alatus* 'Compactus'

**Compact Winged Euonymus - flowers**

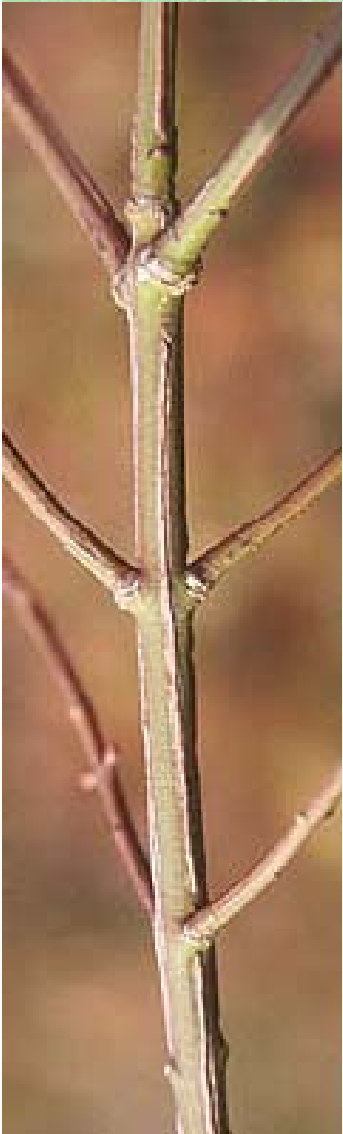


*Euonymus alatus* 'Compactus'

**Compact Winged Euonymus – fruits sparse**



*Euonymus alatus* 'Compactus'  
Compact Winged Euonymus - winter



stem "wings" less prominent than on *E alatus*

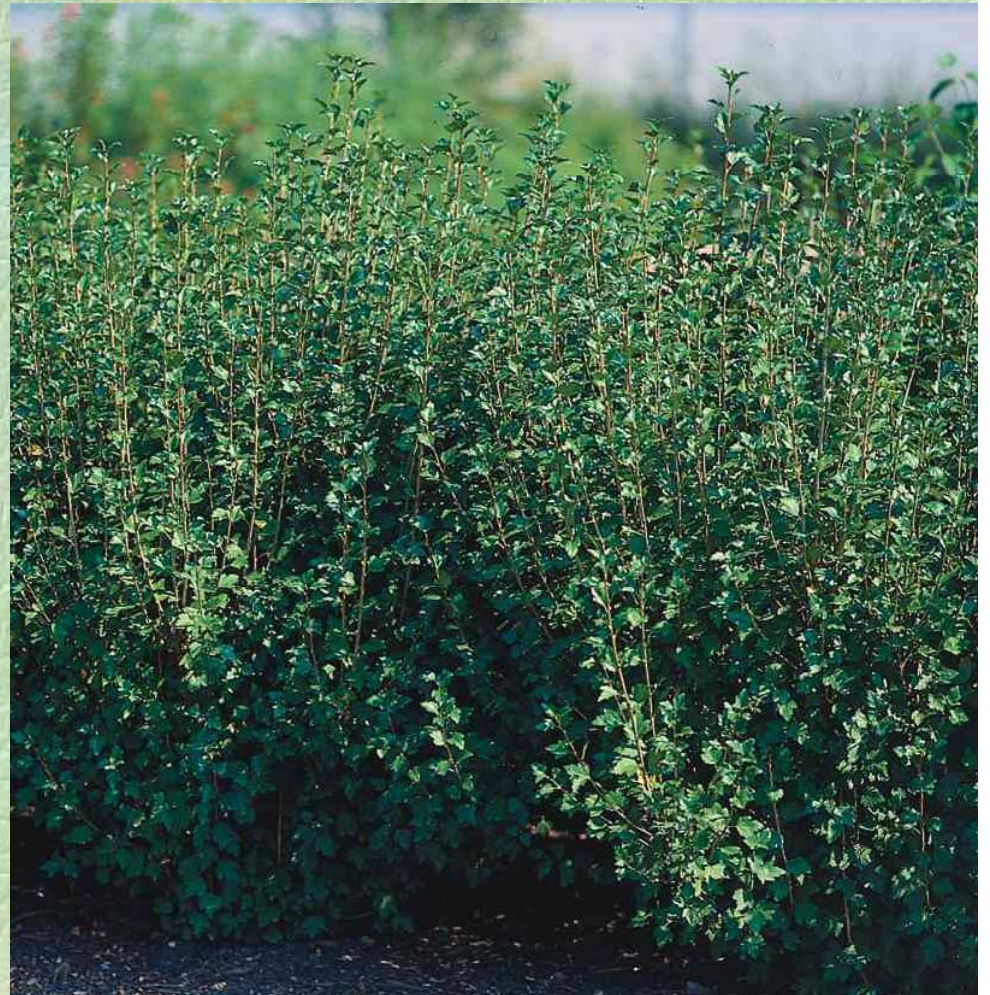
*Ribes alpinum*

**Alpine Currant**



*Ribes alpinum*

Alpine Currant – leaves, size



*Ribes alpinum*

**Alpine Currant – leaves, stem**



*Ribes alpinum*

**Alpine Currant - flowers**



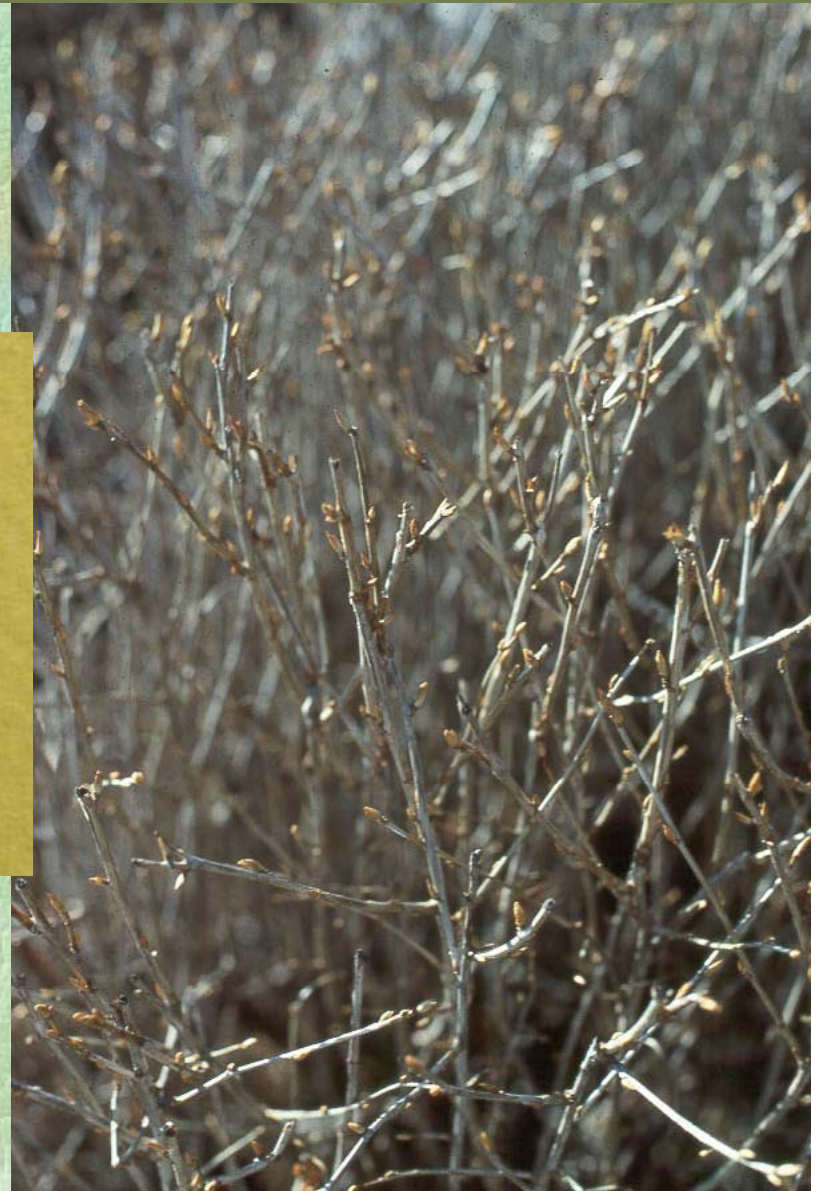
*Ribes alpinum*

**Alpine currant – clipped as hedge**



*Ribes alpinum*

Alpine currant - winter



*Caryopteris x clandonensis*

**Bluebeard or Blue Mist Spirea**

*Caryopteris x clandonensis*

**Bluebeard or Blue Mist Spirea – size, flowers, habit**



*Caryopteris x clandonensis*

**Bluebeard or Blue Mist Spirea- leaves, flowers**





*Caryopteris x clandonensis*

**Bluebeard or Blue Mist Spirea – flowers close**



*Caryopteris x clandonensis*

**Bluebeard – habit, winter texture, fruit**



*Caryopteris x clandonensis*

**Bluebeard or Blue Mist Spirea – winter**



*Rhus trilobata*

**Skunkbush Sumac**

*Rhus trilobata*

**Skunkbush Sumac - leaves**



*Rhus trilobata*

Skunkbush Sumac - leaves, fruit



*Rhus trilobata*

**Skunkbush Sumac – size, habit**



*Rhus trilobata*

**Skunkbush Sumac – flower buds**





*Rhus trilobata*

**Skunkbush Sumac - flowers**



*Rhus trilobata*

Skunkbush Sumac - fruits



*Rhus trilobata*

**Skunkbush Sumac - fruits**



*Rhus trilobata*

**Skunkbush Sumac – fall color**



*Rhus trilobata*

**Skunkbush Sumac – winter (flower buds)**

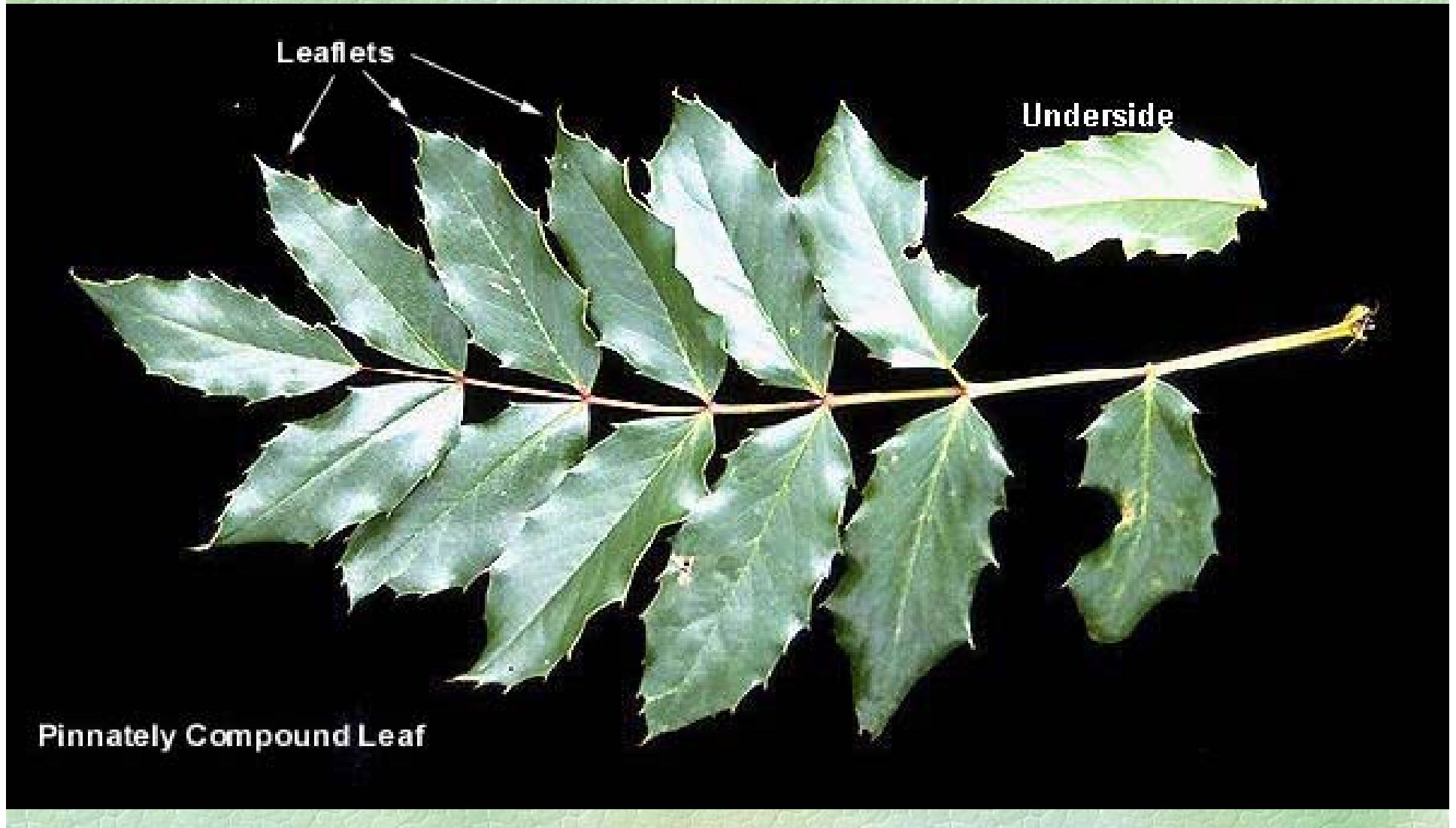


*Mahonia aquifolium*

**Oregon Grapeholly**

*Mahonia aquifolium*

## Oregon Grapeholly - leaf



*Mahonia aquifolium*

## Oregon Grapeholly - flowers





*Mahonia aquifolium*

**Oregon Grapeholly - fruit**



*Mahonia aquifolium*

**Oregon Grapeholly - winter leaves**



## Question 5:

This large shrub has simple, opposite leaves and white flowers in clusters in late May or later. Both vegetative and flower buds are naked (no scales on buds). Leaves may persist in winter; stems are pubescent.

- a. *Amelanchier* sp.
- b. *Ribes alpinum*
- c. *Viburnum lantana*
- d. *Physocarpus opulifolius*



## Question 5: Answer

This large shrub has simple, opposite leaves and white flowers in clusters in late May or later. Both vegetative and flower buds are naked (no scales on buds). Leaves may persist in winter; stems are pubescent.

- a. *Amelanchier* sp.
- b. *Ribes alpinum*
- c. *Viburnum lantana*
- d. *Physocarpus opulifolius*





Thank you!

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Jane Rozum