

Native Trees and Shrubs for North Dakota


Spring Fever Garden Forums
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NDSU Woody Plant Improvement Program Director

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Origins of Landscape Plants

- Native Plants
 - Evolved naturally within a certain geographic location.
- Exotic Plants
 - Introduced into an area.
- Naturalized Plants
 - Entered country as exotics but have adapted so well that they are often mistaken for native plants. Do not damage or change ecosystem
- Invasive Plants
 - Entered country as exotics and after its introduction, is likely to cause economic or environmental harm (or human health) – USDA definition.

Acer rubrum



Acer platanoides



2

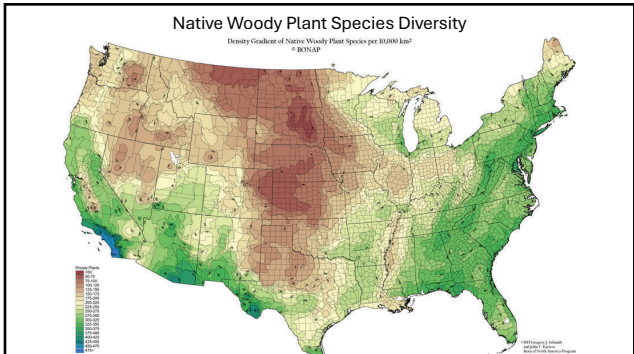
Native vs. Non-Native

- Native
 - Just because they are native to the U.S. doesn't mean that they are native to your area.
 - Generally, grow well within their native area.
- Non-native
 - Can be invasive.
- Most urban landscapes are no longer "native" and have been greatly modified allowing non-native spp. to perform better than native spp.
 - Key is to select plants that perform well in a given site.

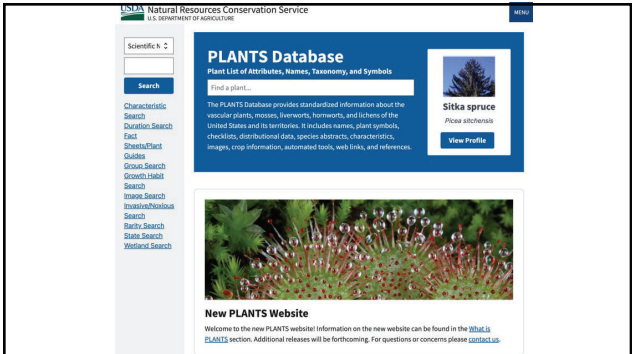
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USDA Natural Resources Conservation Service
U.S. Department of Agriculture

PLANTS Database

Plant List of Attributes, Names, Taxonomy, and Symbols

Find a plant...

Sitka spruce
Picea sitchensis

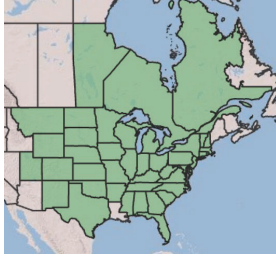
View Profile

New PLANTS Website

Welcome to the new PLANTS website! Information on the new website can be found in the [About PLANTS](#) section. Additional releases will be forthcoming. For questions or concerns please [contact us](#).

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Celtis occidentalis, hackberry

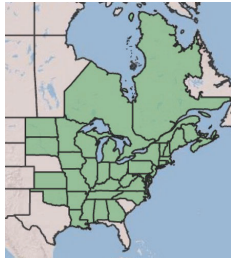


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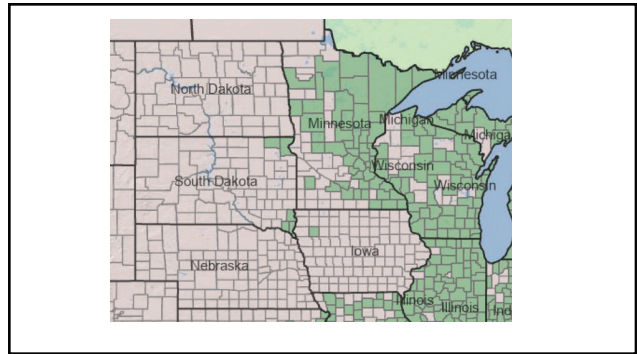


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Acer saccharum, sugar maple



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Trees

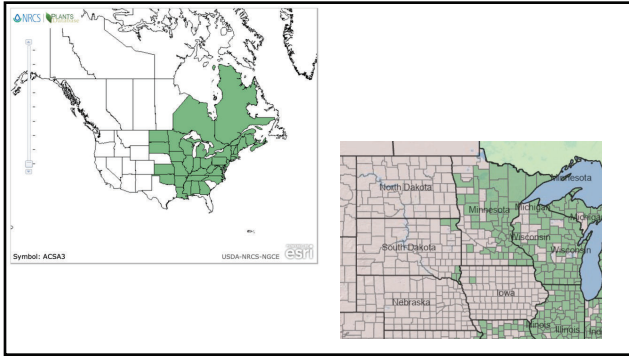
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Acer saccharum, sugar maple, *Sapindaceae*

- 40 to 80 x 30 to 60 feet
- Flower: Insignificant, April, Green
- Sun: Full sun to part shade
- Water: Medium
- Maintenance: Medium
- Leaf: Good Fall
- Tolerate: Shade




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Landscape Uses

- one of the best large shade trees
- excellent fall color
- excellent in large yards, parks, gold courses, campuses




Acer saccharinum Green Mountain®
Green Mountain® Maple
 USDA Zone: 3
 Height: 50'
 Spread: 40'

Description:
 Green Mountain® is the standard for comparison in Sugar Maples. It is the most widely planted shade tree in the eastern half of the country. Its potential for excellent fall color makes it the best choice for northern areas. It provides excellent fall color.



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Acer saccharinum Fallista®
Fall Fiesta® Maple
 USDA Zone: 4
 Height: 50'
 Spread: 40'

Description:
 Slender and compact when young, this cultivar matures to become a full size specimen with an especially symmetrical crown and thick dark green summer foliage. Autumn brings on a mix of orange, red and yellow colors.

Shape: Broadly oval
Foliage: Dark green
Fall Color: Orange, red, and yellow

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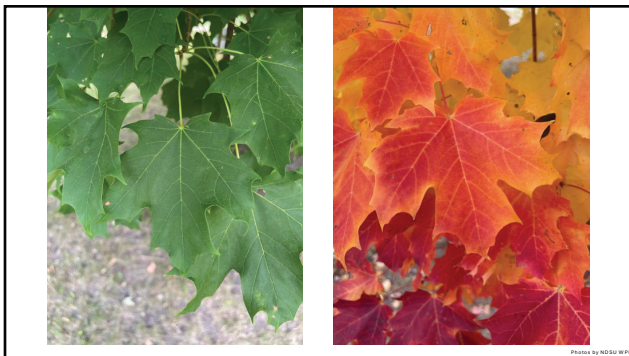
Cosmic Flare™ (*Acer saccharinum* 'CosDak')



- Looks like 'Greenspire' littleleaf linden
- Has orange-red fall color
- Would be great boulevard tree and substitute for 'Greenspire' where Japanese beetles are an issue or overplanting of littleleaf lindens

Photo by NDSU WPH

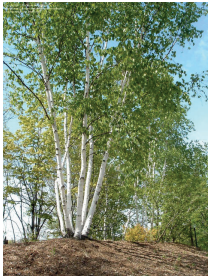
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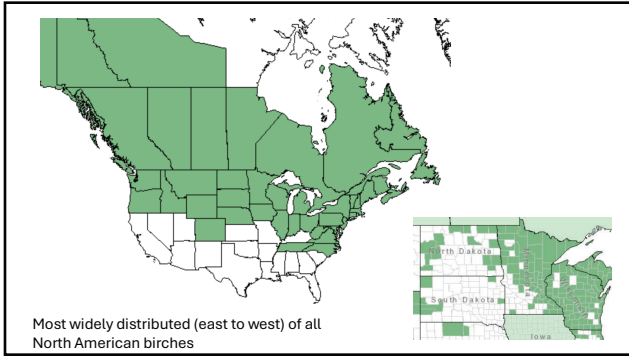
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Betula papyrifera, Paper Birch, *Betulaceae*

- 50 to 70 by 25 to 50'
- Flower: Interesting - catkins
- Sun: Full Sun to Part shade
- Water: Medium to wet
- Maintenance: High
- Leaf: Good Fall
- Other: Winter Interest
- Tolerate: Deer, pH, BBB tolerant if not stressed



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Landscape Uses

- for decoration from showy bark on fall color
- as a lawn tree or specimen
- in parks, on campuses, generally not for inner city
- effective in small groupings
- turf friendly

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Betula papyrifera 'Varen' PP 15768
Prairie Dream® Birch
 Royalty: \$1.05

Zone: 2b
Height: 40'
Spread: 25'
Shape: Pyramidal to upright oval
Foliage: Dark green
Fall Color: Golden yellow

INSECT RESISTANCE: Bronze birch borer

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Betula papyrifera 'Renci' PP 12768
Renaissance Reflection® Birch
 Royalty \$1.05

Zone: 3
Height: 50'
Spread: 25'
Shape: Upright pyramidal
Foliage: Dark green
Fall Color: Yellow

INSECT RESISTANCE: Bronze birch borer

Betula papyrifera 'Oenci' PP 12766
Renaissance Oasis® Birch
 Royalty: \$1.05

Zone: 3
Height: 50'
Spread: 30'
Shape: Broadly pyramidal to oval
Foliage: Dark green
Fall Color: Yellow

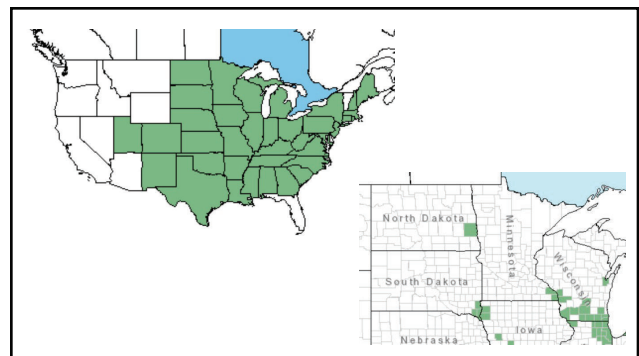
INSECT RESISTANCE: Bronze birch borer

22

Catalpa speciosa*, Northern Catalpa, *Bignoniaceae

- 40 to 70 by 20 to 50 feet
- Flower: Showy, May to June, White with purple and yellow interior spotting
- Sun: Full sun to part shade
- Water: Medium to wet
- Maintenance: Medium
- Fruit: Showy
- Tolerate: Deer, Drought or Wet, Alkaline Clay Soil, Air Pollution


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Landscape Uses



- boulevard
- shade tree (lawn tree, park tree)
- rain garden or riparian
- native
- for flowering effect



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<p><i>Catalpa speciosa</i> Northern Catalpa</p>  <p>Zone: 5 Height: 50' Spread: 35' Shape: Pyramidal with rounded top, open structure Foliage: Medium green, large leaves Fall Color: Yellow-green Flower: White, in large clusters</p>	<p><i>Catalpa speciosa</i> 'Hiawatha 2' Heartland® Catalpa Royalty: \$1.50</p>  <p>Zone: 5 Height: 50' Spread: 25' Shape: Upright narrow oval Foliage: Dark green, large leaves Fall Color: Yellow-green Flower: White, in large clusters</p>
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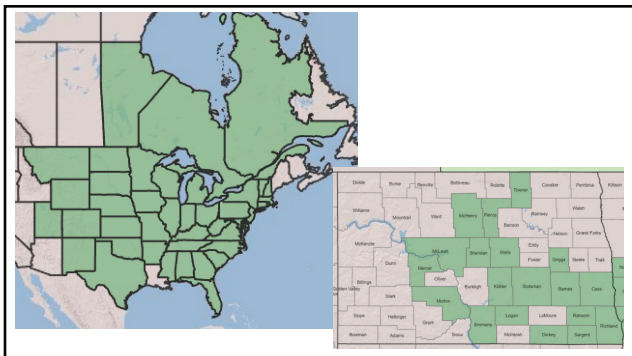
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Celtis occidentalis, Hackberry, *Cannabaceae*

- 40 to 60 x 40 to 60'
- Sun: Full sun to part shade
- Water: Medium to wet
- Maintenance: Low
- Flower: Insignificant
- Attracts: Birds, Butterflies
- Fruit: Edible, Drupe
- Tolerate: Drought, Clay Soil, Wet Soil, Air Pollution




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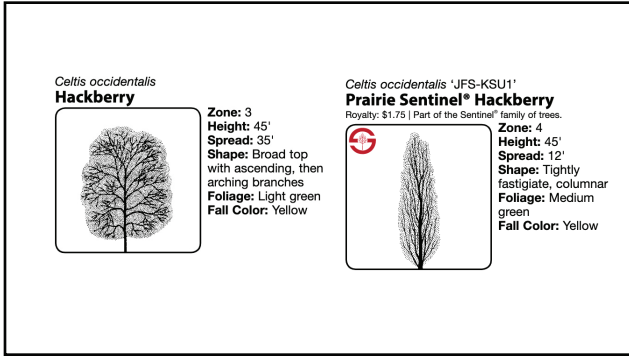
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Landscape Use

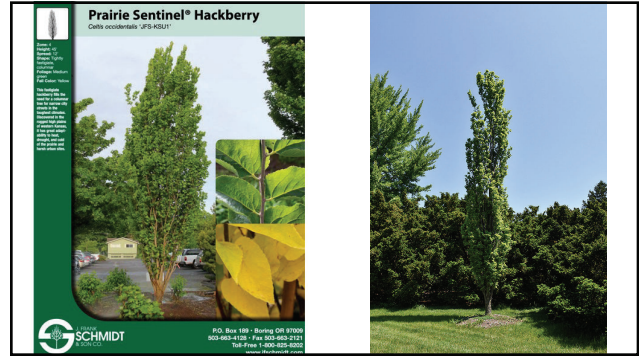
- Tough elm and ash alternative
- Boulevard
- Campus
- Parks
- Golf courses
- Wildlife (food)
- Wind tolerant



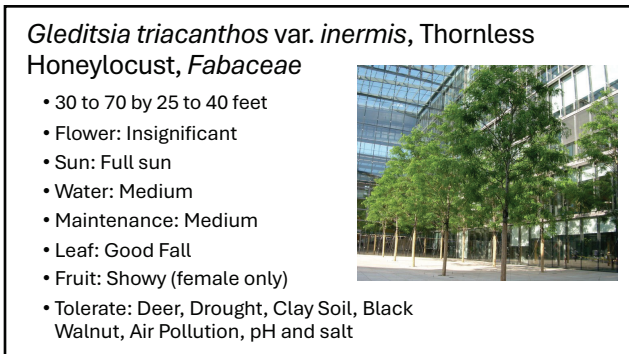

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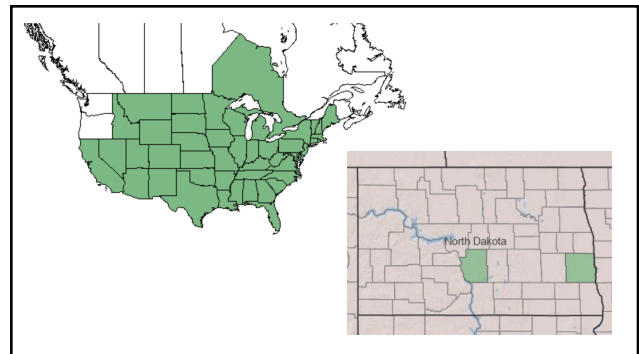
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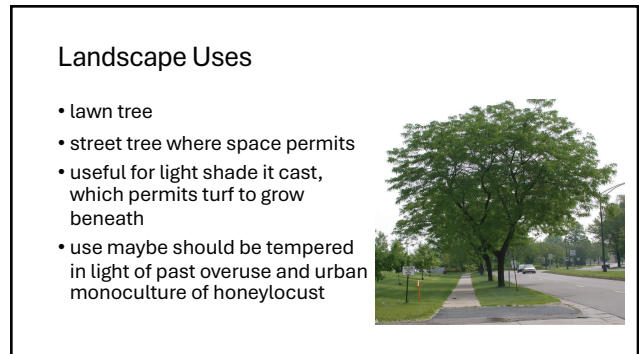
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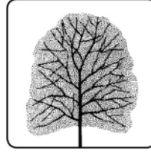

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<p><i>Gleditsia triacanthos</i> 'Harve' Northern Acclaim® Honeylocust Royalty \$.70</p>  <p>Zone: 3b Height: 45' Spread: 35' Shape: Broadly pyramidal Foliage: Fine textured, medium green Fall Color: Yellow Fruit: Seedless</p>	<p><i>Gleditsia triacanthos</i> 'Impcole' Imperial® Honeylocust Royalty \$.75</p>  <p>Zone: 4 Height: 35' Spread: 35' Shape: Rounded Foliage: Fine textured, medium green Fall Color: Yellow Fruit: Seedless</p>
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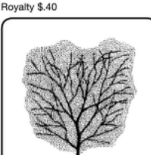
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<p><i>Gleditsia triacanthos</i> 'Suncole' Sunburst® Honeylocust Royalty \$.75</p>  <p>Zone: 4 Height: 40' Spread: 35' Shape: Irregular, somewhat rectangular outline Foliage: Bright yellow tip growth Fall Color: Yellow-brown Fruit: Seedless</p>	
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<p><i>Gleditsia triacanthos</i> 'Skycole' Skyline® Honeylocust Royalty \$.75</p>  <p>Zone: 4 Height: 45' Spread: 35' Shape: Broadly pyramidal Foliage: Fine textured, medium green Fall Color: Golden Fruit: Seedless</p>	<p><i>Gleditsia triacanthos</i> 'Draves' PP 21698 Street Keeper® Honeylocust Royalty \$1.00</p>  <p>Zone: 4b Height: 45' Spread: 20' Shape: Narrow, strongly upright, tightly pyramidal Foliage: Dark green, fine textured Fall Color: Yellow</p>
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<p><i>Gleditsia triacanthos</i> 'Christie' Halka™ Honeylocust Royalty \$1.00</p>  <p>Zone: 4 Height: 40' Spread: 40' Shape: Widely oval to round Foliage: Fine textured, medium green Fall Color: Yellow</p>	<p><i>Gleditsia triacanthos</i> 'Shademaster' Shademaster® Honeylocust Royalty \$.40</p>  <p>Zone: 4 Height: 45' Spread: 35' Shape: Vase to rectangular in outline Foliage: Fine textured, medium green Fall Color: Yellow Fruit: Seedless INSECT RESISTANCE: Spider mites</p>
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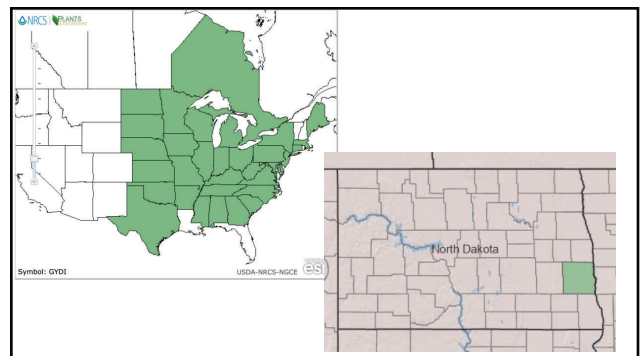
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Gymnocladus dioica, Coffeetree, *Fabaceae*

- 60 to 80 by 40 to 55 feet
- Flower: Showy, Fragrant (rose), May to June, Greenish-white
- Sun: Full sun
- Water: Medium
- Maintenance: Low
- Fruit: Showy (female only)
- Other: Winter Interest
- Tolerate: Drought, Air Pollution, Soil adaptable




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Landscape Uses

- lawn tree
- shade tree
- parks
- golf courses
- boulevard



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Gymnocladus dioica
Kentucky Coffee Tree



Zone: 4
Height: 50'
Spread: 35'
Shape: Oval to vase with upright arching branches
Foliage: Green, doubly compound
Fall Color: Yellow

Male

Espresso™ Kentucky Coffee Tree
Gymnocladus dioica 'Espresso JPY'



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Gymnocladus dioica 'Morton'
Skinny Latte™ Kentucky Coffee Tree
Royalty: \$1.25

LIMITED QUANTITIES



Zone: 4
Height: 50'
Spread: 18'
Shape: Narrow vase, nearly columnar
Foliage: Green leaflets form large, frond-like fans
Fall Color: Yellow
Fruit: Seedless


NEW 2020



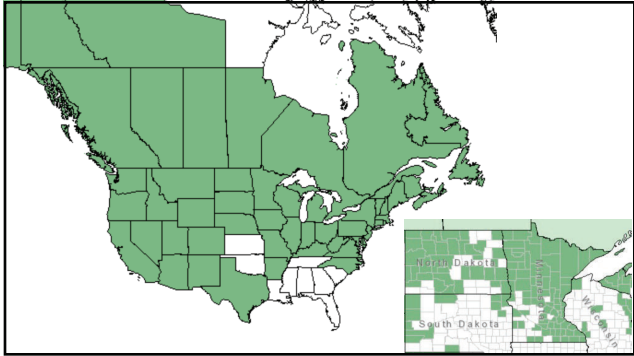
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Populus tremuloides, Quaking Aspen, Salicaceae

- 20 to 50 by 10 to 30 feet
- Bloom Time: April
- Sun: Full sun
- Water: Medium
- Maintenance: High
- Suggested Use: Naturalize
- Flower: Insignificant
- Leaf: Good Fall
- Attracts: Birds





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Landscape Uses

- lumber
- interesting form
- Native
- Bark color


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Populus tremuloides 'JFS-Column'
Mountain Sentinel® Aspen
Royalty: \$1.50 | Part of the Sentinel® family of trees.



Zone: 3
Height: 35'
Spread: 8'
Shape: Narrow, fastigiate
Foliage: Green, trembles in breeze
Fall Color: Yellow
Fruit: Seedless

Populus tremuloides 'NE-Arb'
Prairie Gold® Aspen
Royalty: \$1.50




Zone: 4
Height: 40'
Spread: 15'
Shape: Narrow oval to pyramidal
Foliage: Light green, trembling in breeze
Fall Color: Golden yellow

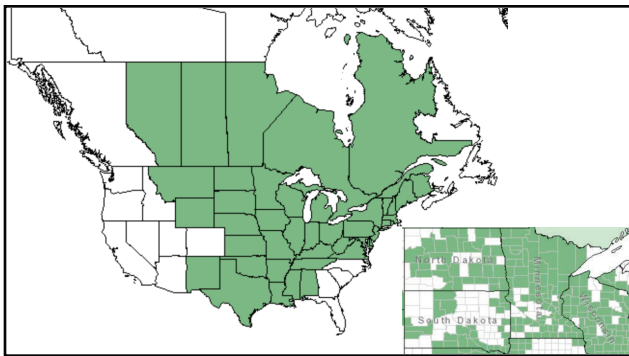
49

***Quercus macrocarpa*, Bur Oak, Fagaceae**

- 60 to 80 by 60 to 80 feet
- Flower: Insignificant
- Sun: Full sun
- Water: Dry to medium
- Maintenance: Low
- Fruit: Showy
- Tolerate: Drought, Clay Soil, Dry Soil




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Landscape Uses

- shade tree
- for large area
- street tree
- specimen
- slow grower
- fire and drought tolerant



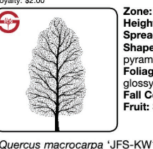
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Quercus macrocarpa
Bur Oak




Zone: 3
Height: 55'
Spread: 45'
Shape: Broadly oval, irregular and open
Foliage: Dark green
Fall Color: Yellow to yellow brown

Quercus macrocarpa 'JFS-KW3' PP 22815
Urban Pinnacle® Oak
Royalty: \$2.00



Zone: 3
Height: 55'
Spread: 25'
Shape: Narrow, pyramidal to oval
Foliage: Dark green, glossy
Fall Color: Yellow
Fruit: Small acorn

Quercus macrocarpa 'JFS-KW14'
Cobblestone® Oak
Royalty: \$2.00




Zone: 3
Height: 55'
Spread: 45'
Shape: Broadly oval
Foliage: Dark green
Fall Color: Yellow

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***Quercus macrocarpa* 'JFS-KW3' PP 22815
Urban Pinnacle® Oak**

Zone: 3 **Height:** 55' **Spread:** 25'



Shape: Narrow pyramidal to oval
Foliage: Dark green, glossy
Fall Color: Yellow
Fruit: Small acorn

Narrow and upright with a strong central leader, this cultivar also features attractive glossy foliage and resistance to both mildew and antracnose. About 1/2" in diameter, the acorns are extremely small for a bur oak, making it a more suitable tree for landscape and street use.




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Quercus macrocarpa 'JFS-KW14'
Cobblestone® Oak

Zone: 3 Height: 55' Spread: 45'

Shape: Broadly oval
 Foliage: Dark green
 Fall Color: Yellow




A traditional form of bur oak with corkiest bark we have observed in the nursery. With bur oak's rugged form and unusually corky branches, it has an "ancient tree" look at a young age. The handsome foliage is dark green and the tree was selected for mildew and anthracnose resistance.



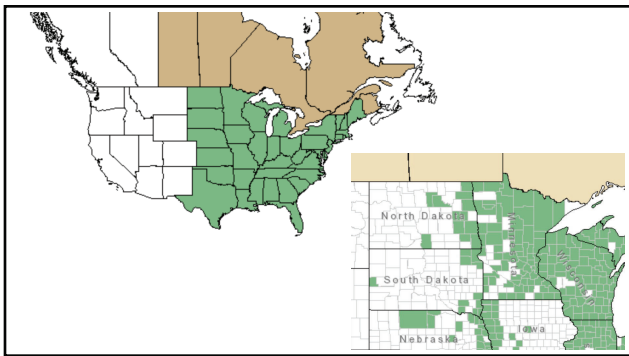
55

Tilia americana, American Linden, *Malvaceae*

- 50 to 80 by 30 to 50 feet
- Flower: Showy, Fragrant, June, Pale yellow
- Sun: Full sun to part shade
- Water: Medium
- Maintenance: Low
- Attracts: Pollinators (Butterflies, Bees)
- Fruit: Showy
- Tolerate: Drought, Clay Soil



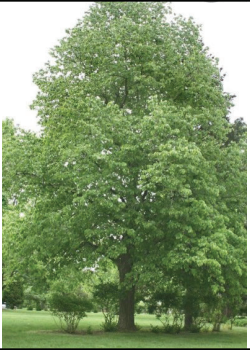
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Landscape Uses


- shade tree
- lawn tree
- boulevard (cultivars)
- pollinators
- liability
 - girdling roots



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Tilia americana 'McKSentry'
American Sentry® Linden
 Royalty \$.75

Zone: 3
 Height: 45'
 Spread: 30'
 Shape: Pyramidal, symmetrical
 Foliage: Medium green
 Fall Color: Yellow



Tilia americana 'Boulevard'
Boulevard Linden


Zone: 3
 Height: 50'
 Spread: 25'
 Shape: Narrowly pyramidal
 Foliage: Medium green
 Fall Color: Yellow



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Tilia americana x *euchlora* 'Redmond'
Redmond Linden


Zone: 3
 Height: 35'
 Spread: 25'
 Shape: Densely pyramidal
 Foliage: Light green
 Fall Color: Yellow



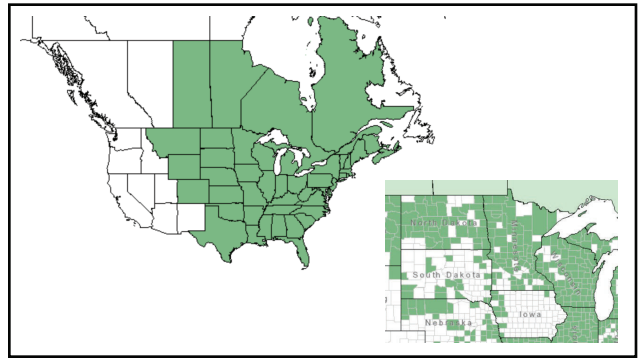
60

Ulmus americana, American Elm, *Ulmaceae*

- 60 to 80 by 40 to 70 feet
- Flower: Insignificant
- Sun: Full sun
- Water: Medium
- Maintenance: Medium
- Tolerate: Drought, Flood, Black Walnut, Air Pollution, pH, poor soils



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Landscape Uses

- for beautiful habit
- street tree
- lawn tree




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Ulmus americana 'Lewis & Clark'
Prairie Expedition® Elm
Royalty: \$3.95




Zone: 2b
Height: 55'
Spread: 60'
Shape: Broad, rounded to spreading vase
Foliage: Dark green
Fall Color: Yellow

DISEASE TOLERANCE: Dutch elm disease



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Ulmus americana 'Valley Forge'
Valley Forge Elm



Zone: 4
Height: 70'
Spread: 70'
Shape: Broad vase with arching limbs
Foliage: Medium green
Fall Color: Yellow

DISEASE TOLERANCE: Dutch elm disease

Ulmus americana 'Princeton'
Princeton Elm




Zone: 4
Height: 65'
Spread: 50'
Shape: Upright vase
Foliage: Dark green
Fall Color: Yellow

DISEASE TOLERANCE: Dutch elm disease

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Ulmus americana 'JFS-Prince II'
Colonial Spirit® Elm
Royalty: \$1.75



Zone: 4
Height: 65'
Spread: 50'
Shape: Vase with arching limbs
Foliage: Dark green
Fall Color: Yellow

DISEASE TOLERANCE: Dutch elm disease


Ulmus americana 'New Harmony'
New Harmony Elm



Zone: 4
Height: 70'
Spread: 55'
Shape: Vase with arching limbs
Foliage: Medium green
Fall Color: Yellow

DISEASE TOLERANCE: Dutch elm disease

Ulmus americana 'Jefferson'
Jefferson Elm




Zone: 4
Height: 70'
Spread: 50'
Shape: Vase with arching limbs
Foliage: Dark green
Fall Color: Yellow

DISEASE TOLERANCE: Dutch elm disease

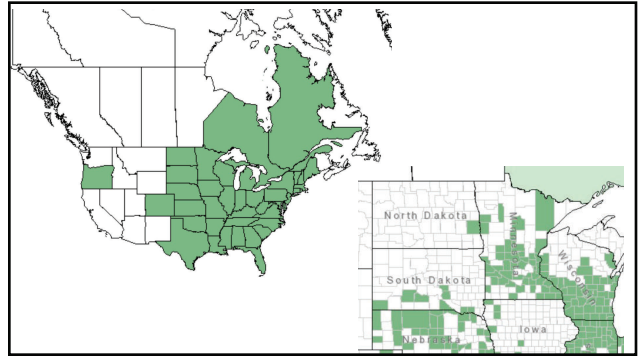
66

Juniperus virginiana, Eastern Redcedar, *Cupressaceae*

- 30 to 65 by 8 to 25 feet
- Bloom: cone
- Sun: Full sun
- Water: Dry to medium
- Maintenance: Low
- Leaf: Evergreen
- Other: Winter Interest
- Tolerate: Deer, Drought, Erosion, Dry Soil, Shallow-Rocky Soil, Black Walnut, Air Pollution



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Landscape Uses

- specimen
- screen
- mass plantings
- groupings
- windbreaks
- foundation plantings
- wood used for cedar products, fence posts
- difficult sites

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Open canopy when young




Taylor Juniper ('Taylor')
30 x 3'



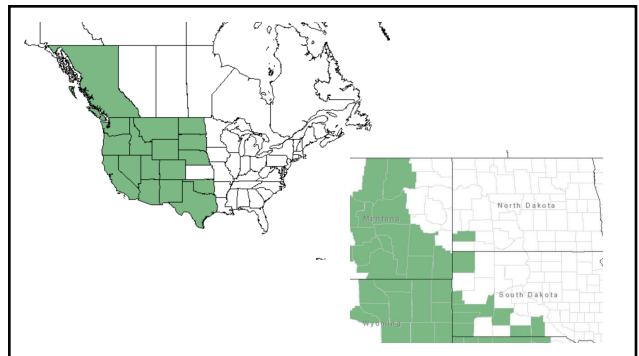
70

Pinus ponderosa, Ponderosa Pine, *Pinaceae*

- 60 to 125 by 25 to 30 feet
- Bloom: Cone
- Sun: Full sun
- Water: Medium
- Maintenance: Low
- Leaf: Fragrant, Evergreen, needles in 3's (mostly, some 2's)
- Other: Winter Interest
- Tolerate: Deer, drought, alkaline soils, salt, very tolerant pine




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Landscape Uses

- lumber
- windbreak
- specimen
- highway buffer – salt tolerance
- mass plantings
- bark has limited fireproof capabilities




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Shrubs

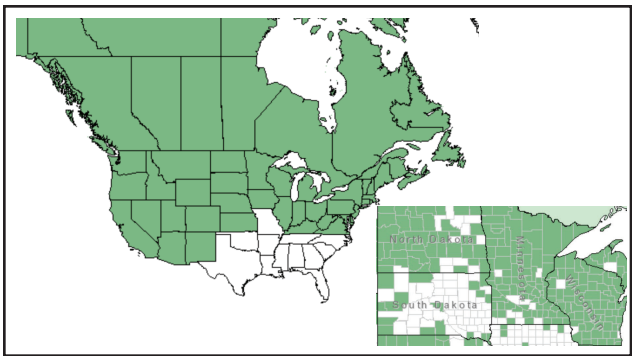
74

Cornus sericea, Redosier Dogwood, *Cornaceae*

- 6 to 9 by 7 to 10 feet
- Flower: Showy, May to June, White
- Sun: Full sun to part shade
- Water: Medium to wet
- Maintenance: Medium
- Leaf: Good Fall
- Attracts: Birds, Butterflies
- Fruit: Showy
- Other: Winter Interest
- Tolerate: Deer, Erosion, Clay Soil, Wet Soil




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Landscape Uses

- for winter ornamental appeal – colorful stems
- border
- mass plantings
- wet soil sites
- naturalistic areas
- probably not at its best used individually



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Arctic Fire® ('Farrow')



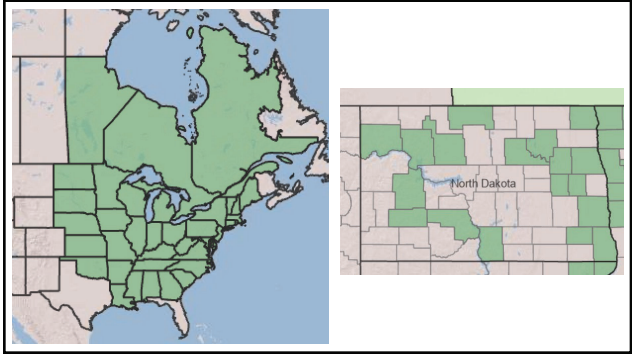
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Corylus americana, American hazel (filbert), *Betulaceae*

- Size: 8 to 15 with 2/3 spread
- Growth rate: medium to fast
- Bloom: catkins (male), flowers (female)
- Sun: Full sun
- Water: Medium
- Maintenance: low
- Leaf: green, may have good fall color
- Other: drought tolerant, shade tolerant, pH adaptable, ediscaping



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Landscape Uses

- Ediscaping
- Naturalizing, other non-formal areas



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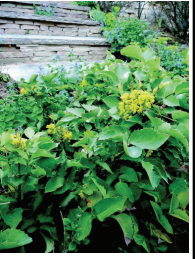
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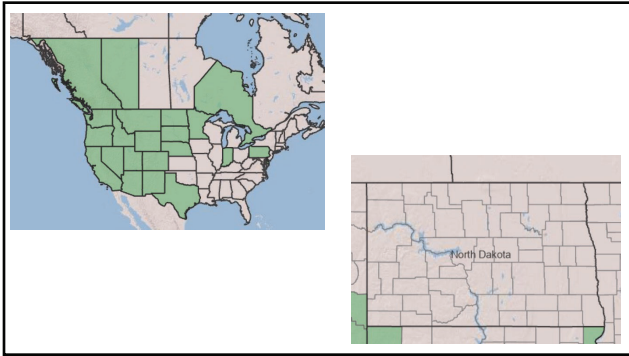
83

Mahonia repens (*Berberis repens*), creeping Mahonia or creeping Oregon Grape or creeping barberry, *Berberidaceae*

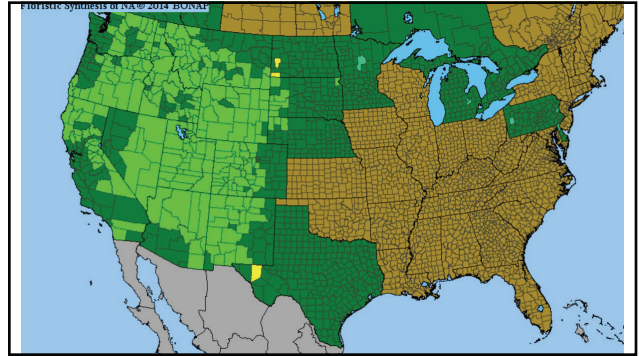
- 18" by 2', groundcover
- Bloom Time: April
- Bloom Description: Yellow, small clusters, slightly ornamental
- Sun: Full sun to part shade
- Water: Medium to Low once established
- Maintenance: Medium
- Flower: Showy
- Leaf: Broadleaf Evergreen
- Fruit: Showy, Edible
- Tolerate: Deer, drought, part-shade



84



85



86

Landscape Uses

- Groundcover for Slopes and Banks – dry sites
- Understory or Shade Plantings
- Supports pollinators with early spring flowers and wildlife with late-summer berries.
- Multi-Seasonal Interest
 - Spring: bright yellow flower clusters
 - Summer: blue berries
 - Fall–Winter: bronzy to purplish evergreen foliage



87




Plant habit, winter, exposed site

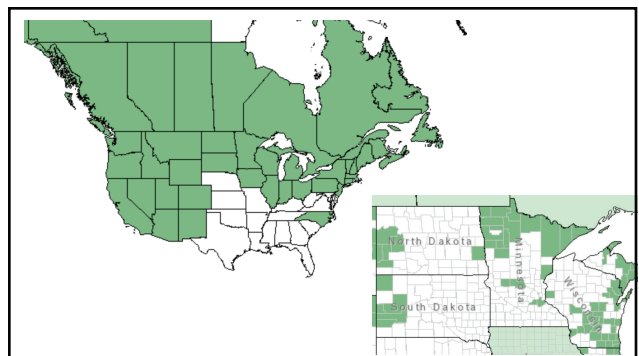
88

Potentilla fruticosa*, *Potentilla*, *Rosaceae

- *Dasiphora fruticosa* is true name
- 2 to 4 by 3 to 5 feet
- Flower: Showy, June to September
- Sun: Full sun to part shade
- Water: Medium
- Maintenance: Low
- Attracts: Butterflies, bees
- Tolerate: Rabbit, Deer, Drought, Erosion, Clay Soil, Air Pollution



89



90

Landscape Uses

- shrub borders
- foundation plant
- for flowers
- mass plantings - filler




91



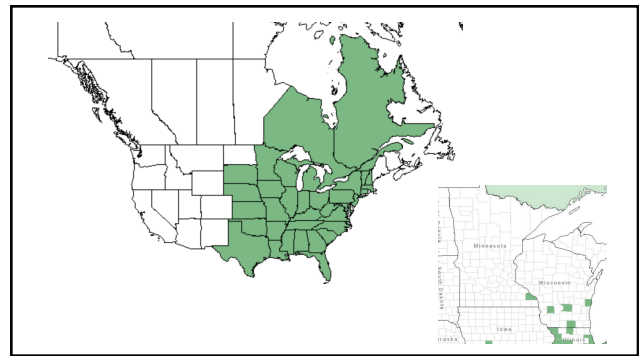
92

Rhus aromatica* 'Gro-Low', Grow-Low Fragrant Sumac, *Anacardiaceae

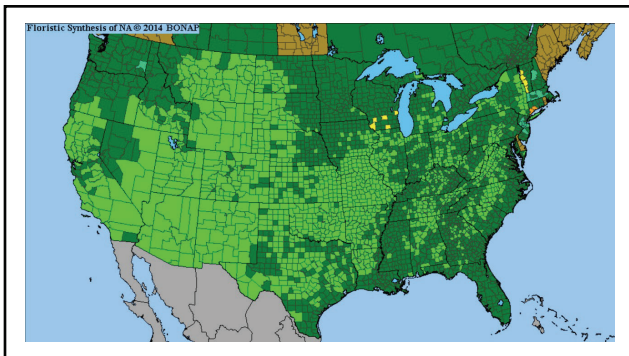
- 2 by 8 feet
- Flower: Insignificant
- Sun: Full sun to part shade
- Water: Dry to medium
- Maintenance: Low
- Leaf: Fragrant, Good Fall
- Attracts: Birds, Butterflies
- Fruit: Showy
- Tolerate: Rabbit, Drought, Erosion, Clay Soil, Dry Soil, Shallow-Rocky Soil, Black Walnut



93




94



95

Landscape Uses

- massing
- woods edge
- naturalistic areas
- bank covers
- groundcover
- fall color




96



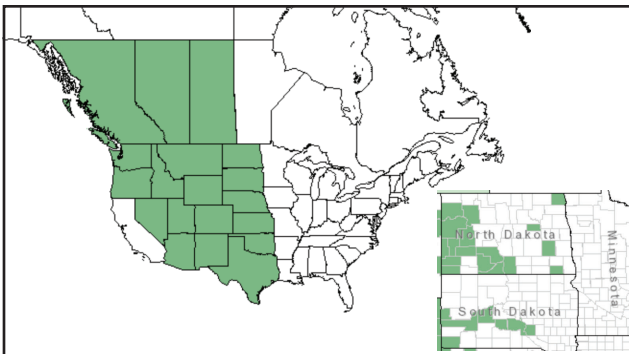
97

Juniperus scopulorum, Rocky Mountain Juniper, Cupressaceae

- 10 to 15 by 4 to 6 feet
- Bloom: Cone
- Sun: Full sun
- Water: Medium
- Maintenance: Low
- Leaf: Evergreen
- Other: Winter Interest
- Tolerate: Deer, Drought, Erosion, Dry Soil, Shallow-Rocky Soil, Air Pollution



98




99

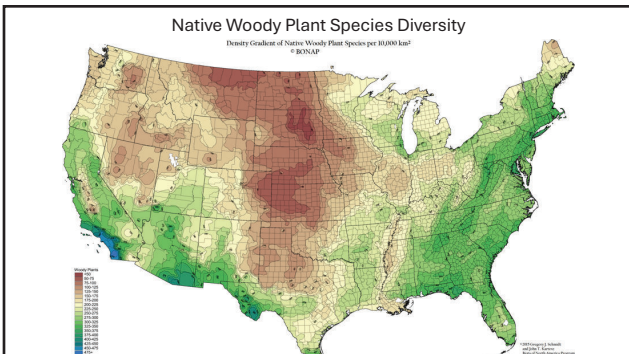
Landscape Uses

- specimen
- screen
- mass plantings
- hedges
- foundation plantings
- 'Medora' and 'Skyrocket' are most common cultivars

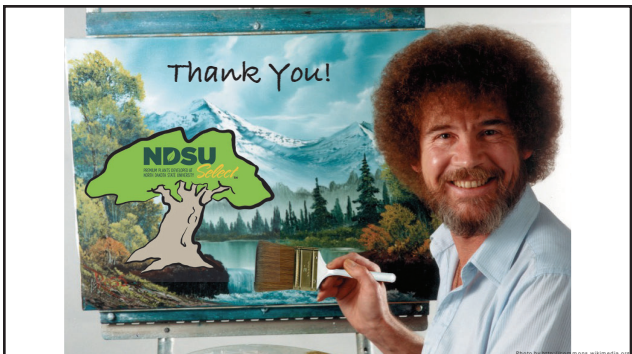
'Skyrocket'



100



101



102