# **Recommended Trees for North Dakota**



American elm lined street, Bismarck 2019

LARGE Trees (45' & up) Pages 3-6

MEDIUM Trees (30-45') Pages 7-9

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References Page 13

- Trees with **BLUE** highlighted text are links to a website and/or PDF with more information. (Items in blue text below are also links.)
- Numbers which follow tree descriptions indicate references (p.13) for that tree.
- Some of the References on page 13 also have links.

# NOTE:

Keep DIVERSITY of species in mind- communities should take steps to choose varieties that do not dominate the landscape currently. Follow this guideline:

- 20% or less of trees from the same Genus
- 10% or less of trees from the same Species

#### **EXAMPLE:**

Ulmus (Genus) americana (Species) 'Lewis & Clark' (Cultivar)

Common Name: 'Prairie Expedition' American elm

A CTAP/public tree inventory\* is an excellent resource for managing community trees. Go to <a href="https://ndcitytrees.org/NorthDakota/">https://ndcitytrees.org/NorthDakota/</a>, click 'Explore Cities'. Find your city and click on it. Scroll down and click 'Charts'. This will show you a pie chart of all of the tree species in your community. If any tree species on your list are more than 10%, avoid choosing those species when selecting trees for planting.

For more information on Tree Classification, please visit The Arbor Day Foundation

<sup>\*</sup>contact NDFS Community Forestry staff if your community does not have a CTAP/public tree inventory.

# Large Trees (45' & up)

# ELM \*all elms listed have resistance to Dutch elm disease (DED)

#### PRAIRIE EXPEDITION AMERICAN ELM (Ulmus americana 'Lewis & Clark')

**Height:** 55' **Zone:** 4 **Shape:** Rounded to spreading vase

Spread: 60' Foliage: Dark green Fall Foliage: Yellow

NDSU selection, fast growth, moderate maintenance during formative years. High

DED resistance. (1,2,6,7,8,10,11)

#### PRINCETON AMERICAN ELM (Ulmus americana 'Princeton')

**Height:** 60-80' **Zone:** 4 **Shape:** Upright

**Spread:** 40-60' **Foliage:** Dark green **Fall Foliage:** Yellow

Fast growth, high maintenance during formative years. Adaptable to extremes in

pH, moisture, heat and wind. High DED resistance. (1,2,6,7,8,10,11)

#### VALLEY FORGE AMERICAN ELM (Ulmus americana 'Valley Forge')

**Height:** 60-70′ **Zone:** 4 **Shape:** Upright, arching

**Spread:** 60-70′ **Foliage:** Dark green **Fall Foliage:** Yellow

Very fast growth, high maintenance during formative years. Exhibits tolerance to salts, drought, poor soil, and air pollution. High DED resistance. (1,2,6,7,8,10,11)

#### CATHEDRAL ELM (Ulmus 'Cathedral')

**Height:** 40-50′ **Zone:** 4 **Shape:** Broadly vase-shaped

**Spread:** 40-60' **Foliage:** Medium to light green **Fall Foliage:** Yellow

Fast growth, high maintenance during formative years. Moderate resistance to

DED. (2,6,8,9,10)

# TRIUMPH ELM (Ulmus 'Morton Glossy')

Height: 60' Zone: 4 Shape: Upright

Spread: 35-40' Foliage: Glossy, deep green Fall Foliage: Yellow

Very fast growth, moderate maintenance during formative years. Excellent disease

and pest resistance. (2,6,7,8,10,11)

# LINDEN/BASSWOOD

#### AMERICAN LINDEN/BASSWOOD (Tilia americana)

**Height:** 75-90' **Zone:** 3 **Shape:** Rounded at maturity

**Spread:** 40-50′ **Foliage:** Large, dark green **Fall Foliage:** Pale yellow

Tall, spreading, adaptable, native linden. Fragrant yellow flowers and large,

dense foliage. (1,6,7,10)

#### BOULEVARD LINDEN (Tilia americana 'Boulevard')

**Height:** 60' **Zone:** 3 **Shape:** Pyramidal

**Spread:** 30' Foliage: Dark green Fall Foliage: Yellow

Fragrant yellow flowers. Ideal for boulevards and other sites where height is

needed but width is limited. (1,7,11)

#### FRONTYARD LINDEN (Tilia americana 'Bailyard')

**Height:** 60-75′ **Zone:** 3 **Shape:** Rounded

Spread: 40' Foliage: Green Fall Foliage: Yellow

Broadly pyramidal when young and nicely rounded with age. Dense foliage of-

fers excellent shade. (1,7)

# REDMOND LINDEN (Tilia americana 'Redmond')

**Height:** 40-60′ **Zone:** 3 **Shape:** Pyramidal, uniform

**Spread:** 25-30′ **Foliage:** Glossy, light green **Fall Foliage:** Bright yellow

Dense foliage, very hardy. (1,7,11)

# **MAPLE**

# FALL FIESTA SUGAR MAPLE (Acer saccharum 'Bailsta')

**Height:** 50-75′ **Zone:** 3 **Shape:** Upright, rounded

**Spread:** 50' **Foliage:** Glossy, leathery green **Fall Foliage:** Orange, red

Rapid grower, prefers well-drained soil with slight acidity. (1,7,11)

#### GREEN MOUNTAIN SUGAR MAPLE (Acer saccharum 'Green Mountain')

**Height:** 50-75′ **Zone:** 4 **Shape:** Upright oval

**Spread:** 35-40′ **Foliage:** Glossy, deep green **Fall Foliage:** Orange-scarlet

Excellent heat tolerance, and performs well in dry, restricted sites. (1,7,11)

#### NORTHERN FLARE SUGAR MAPLE (Acer saccharum 'Sisseton')

**Height:** 40-50′ **Zone:** 3 **Shape:** Oval to broadly ovate

**Spread:** 30-40' **Foliage:** Green **Fall Foliage:** Orange-red

Prefers a deep, well-drained, non-droughty soil. Will tolerate higher soil pH levels

than the species. (1,4,11)

#### SIENNA GLEN MAPLE (Acer x freemanii 'Sienna')

**Height:** 50-75′ **Zone:** 3 **Shape:** Pyramidal

Spread: 40' Foliage: Green Fall Foliage: Yellow, orange, red

MN origin. Tolerant of alkaline, acidic and wet soil conditions. (1,7,11)

# WHITE OAK

#### BUR OAK (Quercus macrocarpa)

**Height:** 60-80' **Zone:** 3 **Shape:** Rounded, open

**Spread:** 60-80′ **Foliage:** Dark green **Fall Foliage:** Yellow-brown to purple

Drought tolerant native oak of the white oak family. Tolerates a wide range of soil

types and air pollutants. Attractive corky bark. (1,6,7,10,11)

#### URBAN PINNACLE OAK (Quercus macrocarpa 'JFS-KW3' PP22815)

**Height:** 55' **Zone:** 3 **Shape:** Narrow, upright

**Spread:** 25-30′ **Foliage:** Glossy, dark green **Fall Foliage:** Orange-yellow

Lobed, dark green, glossy foliage. Heat and drought tolerant. (1,6,9,10,11)

#### **SELECTIONS FOR DIVERSITY**

#### NORTHERN CATALPA (Catalpa speciosa)

**Height:** 50-60' **Zone:** 4 **Shape:** Upright, oval

**Spread:** 35-40′ **Foliage:** Green, heart shaped **Fall Foliage:** Yellow-green

Fast growing. 2" long, tube-like white flowers appear in 4-8" panicles. Fruit is a long

persistent pod. Very tolerant and adaptable. (7,10,11)

#### HACKBERRY (Celtis occidentalis)

**Height:** 50-75′ **Zone:** 2 **Shape:** Spreading, rounded

**Spread:** 50' **Foliage:** Bright green **Fall Foliage:** Soft yellow

Tall, spreading, native tree. Very adaptable to urban conditions. (1,6,7,10,11)

#### PRAIRIE SENTINEL HACKBERRY (Celtis occidentalis 'JFS-KSUI')

**Height:** 40-45′ **Zone:** 4 **Shape:** Narrow, columnar

**Spread:** 10-15' **Foliage:** Bright green **Fall Foliage:** Bright yellow

Perfect for tight spaces. Adaptability to heat, cold, and drought. (9,10,11)

# KATSURA (Cercidiphullum japonicum)

**Height:** 40-60' **Zone:** 4 **Shape:** Pyramidal, broad

Spread: 20-30' Foliage: Bluish-green Fall Foliage: Yellow to apricot

Heart-shaped foliage. Little tolerance for drought when young. (7,10,11)

# AUTUMN GOLD GINKGO (Ginkgo biloba 'Autumn Gold')

**Height:** 50′ **Zone:** 4 **Shape:** Upright broad conical

**Spread:** 30' **Foliage:** Green **Fall Foliage:** Yellow

Fruitless selection. Fan-shaped leaves. Tolerant of urban conditions. (4,6,7,10,11)

# ESPRESSO KENTUCKY COFFEETREE (Gymnocladus dioicus 'Espresso-JFS')

**Height:** 50-60' **Zone:** 4 **Shape:** Oval to vase

**Spread:** 35-40′ **Foliage:** Bluish-green **Fall Foliage:** Yellow

Seedless cultivar. Drought tolerant. Excellent for tough urban locations. (1,6,7,10,11)

# **Medium Trees (30-45')**

# **BIRCH**

#### PRAIRIE DREAM PAPER BIRCH (Betula papyrifera 'Varen' PP15768)

**Height:** 35-40′ **Zone:** 2 **Shape:** Upright, oval

**Spread:** 20-25' **Foliage:** Dark green **Fall Foliage:** Bright gold

NDSU selection for snow-white peeling bark. Excellent cold hardiness and resistance to bronze birch borer. Prefers a moist, well-drained site. (1,9,11)

#### DAKOTA PINNACLE ASIAN WHITE BIRCH (Betula platyphylla 'Fargo')

**Height:** 35′ **Zone:** 3 **Shape:** Upright, columnar

**Spread:** 10-12' **Foliage:** Dark green **Fall Foliage:** Golden yellow

NDSU selection for form and bronze birch borer resistance. Tolerant of heat,

drought, and alkaline soils. (1,7,11)

#### NORTHERN TRIBUTE RIVER BIRCH (Betula nigra 'Dickinson')

**Height:** 35' **Zone:** 3 **Shape:** Upright, oval

Spread: 30' Foliage: Dark green Fall Foliage: Yellow

NDSU selection for hardiness. Performs well in alkaline soils and in compacted, dry

soils. Seedling selection from western North Dakota. (1,6,10)

# **BUCKEYE**

# OHIO BUCKEYE (Aesculus glabra)

**Height:** 30' **Zone:** 3 **Shape:** Rounded

**Spread:** 20-40' **Foliage:** Bright green **Fall Foliage:** Yellow-orange to red

Greenish yellow flowers in late spring, followed by large light brown fruit capsules.

Tolerates a wide range of soil conditions. (1,6,7,9,10)

# AUTUMN SPLENDOR OHIO BUCKEYE (Aesculus x arnoldiana 'Autumn Splendor')

**Height:** 30-35′ **Zone:** 3 **Shape:** Rounded

**Spread:** 25' **Foliage:** Dark green **Fall Foliage:** Red

Large white blooms in spring, followed by brilliant red fall color. Prefers moist soil

and full sun. Tolerates a wide range of soil conditions.(1,6,7,9,10)



#### LITTLELEAF LINDEN (Tilia cordata)

Height: 35-45' Zone: 4 Shape: Broad, pyramidal

**Spread:** 30-35′ **Foliage:** Glossy, dark green **Fall Foliage:** Yellow

Glossy dark foliage and fragrant pendulous flowers in early summer. Very adaptable,

does well in poor soil. (1,7,10)

#### GREENSPIRE LINDEN (Tilia cordata 'Greenspire')

**Height:** 40-50' **Zone:** 4 **Shape:** Oval

Spread: 30-35' Foliage: Leathery, dark green Fall Foliage: Yellow

Fragrant, creamy-yellow flowers are followed by a small nutlet. Tolerant of urban

conditions. (1,4,7,10,11)

#### HARVEST GOLD LINDEN (Tilia x mongolica 'Harvest Gold' PP12,232)

**Height:** 30-40′ **Zone:** 2 **Shape:** Upright, oval

**Spread:** 25-30' **Foliage:** Green **Fall Foliage:** Golden yellow

A very hardy selection with upright growth. Glossy, heart-shaped flowers and

fragrant yellow blooms in early summer. Exfoliating bark. (1,7,9,10,11)

# OAK

# PRAIRIE STATURE OAK (Quercus x bimundorum 'Midwest')

**Height:** 30-40′ **Zone:** 3 **Shape:** Pyramidal

Spread: 25-30' Foliage: Glossy, dark green Fall Foliage: Reddish-purple

Outstanding NDSU selection- English x White oak. Prefers a moist, well-drained site.

Excellent boulevard, feature or park tree. (1,6,7,9,10,11)

#### REGAL PRINCE OAK (Quercus x warei 'Long')

**Height:** 40' **Zone:** 4 **Shape:** Upright oval

Spread: 20-25' Foliage: Dark green Fall Foliage: Yellow-brown

Grows faster than other oak, becoming oval with age. Tolerates wet or dry soil

conditions. Shade tree or vertical accent. (6,7,9,10,11)

# **SELECTIONS FOR DIVERSITY**

#### NORTHERN ACCLAIM HONEYLOCUST (Gleditsia triacanthos var. inermis 'Harve')

**Height:** 35-45′ **Zone:** 3 **Shape:** Symmetrical & upright

**Spread:** 30-35′ **Foliage:** Dark green **Fall Foliage:** Yellow

NDSU selection for hardiness. Thornless and seedless, drought resistant. (1,6,7,10,11)

#### PRAIRIE REFLECTION LAUREL WILLOW (Salix pentandra 'Silver Lake')

**Height:** 35-40′ **Zone:** 2 **Shape:** Rounded

**Spread:** 25' **Foliage:** Shiny, dark green **Fall Foliage:** Golden yellow

NDSU selection. Grows rapidly. Dark green, highly glossy foliage. (1,7)

#### YELLOWWOOD (Cladrastis kentukea)

**Height:** 30-40′ **Zone:** 4 **Shape:** Broad-rounded

**Spread:** 30-40′ **Foliage:** Bright green **Fall Foliage:** Yellow

Spectacular in spring with creamy white flower panicles that are 8-14" long and loaded with fragrant pea-like flowers. 4" light brown seed pods form in autumn.

Grows especially well in high pH soils. (6,7,10,11)

# IRONWOOD/AMERICAN HOPHORNBEAM (Ostrya virginiana)

**Height:** 30-45′ **Zone:** 3 **Shape:** Oval to rounded

**Spread:** 25' Foliage: Bright green Fall Foliage: Golden yellow

Slow growing. Hop-like fruits in late summer. Tolerant of dry locations. (1,7,10,11)

#### PRAIRIE HORIZON ALDER (Alnus hirsuta 'Harbin')

**Height:** 30-40′ **Zone:** 4 **Shape:** Upright

Spread: 20-30' Foliage: Dark green Fall Foliage: Yellow

NDSU selection for upright growth and attractive foliage. Rapid growing. Decorative

purple catkins. Drought tolerant. (1,6,7,10)

# Small Trees (15-30')

#### **CHOKECHERRY**

#### AMUR CHOKECHERRY (Prunus maackii)

**Height:** 20-30′ **Zone:** 2 **Shape:** Rounded

**Spread:** 25-30′ **Flower:** White **Fall Foliage:** Yellow

Very hardy, non-suckering. Produces white flowers and black fruit. Striking

metallic, golden-brown, exfoliating bark. Good wildlife plant. (1,4,7)

#### MING CHOKECHERRY (Prunus maackii 'Ming')

**Height:** 15-25' **Zone:** 2 **Shape:** Rounded

Spread: 12-20' Flower: White Fall Foliage: Yellow

Small, bright white, spring blooms mature to black ornamental fruit. Improved

resistance to frost cracking. (5,9,10)

# **CRABAPPLE**

#### ADAMS CRABAPPLE (Malus 'Adams')

**Height:** 25' **Zone:** 4 **Flower:** Single, pink

Spread: 20' Foliage: Green Fall Foliage: Orange-red

Excellent disease resistance. Rounded form. Persistent carmine-red fruit. (3,6,7,11)

#### RED SPLENDOR CRABAPPLE (Malus 'Red Splendor')

**Height:** 20-25' **Zone:** 3 **Flower:** Single, pink

**Spread:** 20' **Foliage:** Glossy, green **Fall Foliage:** Reddish-purple

Shiny, cherry-like, red, extremely persistent fruits. Good wildlife plant. (3,6,7)

# SPRING SNOW CRABAPPLE (Malus 'Spring Snow')

**Height:** 25-30′ **Zone:** 4 **Flower:** Single, white

Spread: 15' Foliage: Shiny, bright green Fall Foliage: Yellow

Fruitless. Pink buds open to fragrant white flowers in spring. (3,6,7,10,11)

#### PURPLE PRINCE CRABAPPLE (Malus 'Purple Prince')

**Height:** 20' **Zone:** 4 **Flower:** Single, red

**Spread:** 20' **Foliage:** Purple-bronze **Fall Foliage:** Purple-red

Spring foliage purple. Abundant maroon fruits. Cherry-like bark.(3,6,7,11)

#### GLADIATOR CRABAPPLE (Malus x adstringens 'Durleo' PP20,167)

**Height:** 20' **Zone:** 2 **Flower:** Pink

**Spread:** 9' **Foliage:** Bronze-purple **Fall Foliage:** Bronze-purple

Upright, columnar and compact. Pink flowers followed by small reddish-purple

fruit. Ideal for space-challenged sites. (3,6,7,9)

# **HAWTHORN**

#### THORNLESS COCKSPUR HAWTHORN (Crataegus crus-galli var. inermis)

**Height:** 15-20' **Zone:** 4 **Shape:** Rounded, spreading

**Spread:** 15-20' **Foliage:** Dark green **Fall Foliage:** Orange

Abundant white flowers in June, followed by small bright red persistent fruit in

autumn. Prefers moist conditions, but is drought-tolerant. (1,7,11)

# **SNOWBIRD HAWTHORN** (*Crataegus x mordenensis* 'Snowbird')

**Height:** 12-15' **Zone:** 3 **Shape:** Upright, rounded

Spread: 20' Foliage: Dark green Fall Foliage: Yellow

Fragrant double white flowers, minimal fruit production. (1,7,11)

# **MAPLE**

### TATARIAN MAPLE (Acer tataricum)

**Height:** 20-25' **Zone:** 3 **Shape:** Oval, irregular

Spread: 18-20' Foliage: Dark green Fall Foliage: Yellow to red

Tolerant of alkalinity and dry conditions. Samaras often red and showy. (1,5,7,11)

# HOT WINGS MAPLE (Acer tataricum 'GarAnn' PP15,023)

**Height:** 20-25′ **Zone:** 3 **Shape:** Upright, spreading

Spread: 18-20' Foliage: Dark green Fall Foliage: Yellow to red

Bright red samaras. Tolerant of alkalinity and dry conditions. (1,5,7,11)

# **SELECTIONS FOR DIVERSITY**

#### AUTUMN BRILLIANCE SERVICEBERRY (Amelanchier x grandiflora 'Autumn Brilliance')

Height: 20-25' Zone: 3 Shape: Rounded

Spread: 15' Foliage: Small, blue-green Fall Foliage: Red-orange

White blossoms in spring, followed by showy, sweet purplish-black fruit. Brilliant

fall leaves are quite persistent. (1,5,7,11)

#### PAGODA DOGWOOD (Cornus alternifolia)

**Height:** 15-20' **Zone:** 3 **Shape:** Rounded

Spread: 20-25' Foliage: Green Fall Foliage: Red-purple

Fragrant pale yellow flowers late spring, followed by blue-black fruit. Prefers moist,

cool, acidic soil and partial shade. (1,4,5,6,7)

#### AMUR MAACKIA (Maackia amurensis)

Height: 20-30' Zone: 4 Shape: Rounded

**Spread:** 25-35′ **Foliage:** Dark olive green **Fall Foliage:** Insignificant

White flowers blooming mid-summer. Shiny amber to copper colored bark exfoliates

with age into loose flakes and curls. Adaptable to a range of soils. (1,5,6,7,10,11)

# PRINCESS KAY PLUM (Prunus nigra 'Princess Kay')

**Height:** 15' **Zone:** 2 **Flower:** Showy white

Spread: 8-10' Foliage: Green Fall Foliage: Yellow-orange

Early double white flowers appearing before foliage. Small yellow-red ornamental

fruit in summer. Prefers a moist, well-drained soil. (1,5,7,9)

#### JAPANESE TREE LILAC (Syringa reticulata)

**Height:** 25' **Zone:** 3 **Shape:** Spreading

Spread: 25' Foliage: Deep green Fall Foliage: Yellow

Creamy white flowers in large panicles early summer. Glossy red-brown bark.

Tolerates a wide variety of moist, well-drained soils. (1,5,6,7,9,10)

#### **REFERENCES:**

- 1. Landscape & Boulevard Trees for North Dakota- Greg Morgenson NDSU 2012
- 2. Elm Trees-Dutch Elm Disease Resistant Varieties- U of MN Extension 2019
- 3. <u>Choice Flowering Crabapple Cultivars for the Northern Plains- Herman, Chaput,</u> West. NDSU 2011
- 4. Bachman's 2019 Wholesale Nursery Catalog
- 5. Small Ornamental Trees for North Dakota Landscapes- Greg Morgenson NDSU 2018
- 6. Tough Trees for North Dakota Landscapes- Todd West NDSU 2018
- 7. Bailey 2020 Plant Catalog
- 8. Elms for North Dakota- NDSU Extension (F1893) October 2018
- 9. Bron & Sons Nursery Co. 2020-2021 Reference Guide
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