

# Trees for North Dakota

10/15/09

The following are descriptions of trees and cultivars growing in North Dakota. It is not a complete list, not all trees are appropriate for all areas of North Dakota. There are other trees and cultivars available. Talk with the local nursery or garden center to determine which are best for your situation and needs.

Additional information and photos can be seen at:

North Dakota Tree Information Center; <http://www.ag.ndsu.edu/trees/handbook.htm>

Northscaping <http://www.northscaping.com/default.asp> under Plant Search,

NDSU Introductions <http://ndsuresearchfoundation.org/index.aspx>

Bailey Nursery - Wholesale supplier: <http://www.baileynurseries.com>

Landscaping, Tree and Shrub Information University of Minnesota: <http://www.sustland.umn.edu>

The Landscape Design Site <http://www.the-landscape-design-site.com>

When selecting a tree look at the planting site:

1. Are there power lines over head? (Plant smaller trees so they do not interfere with utility lines.
2. Are there utilities underground?
3. How much room does the tree have to grow above and below ground? The size of the boulevard should be considered when selecting trees to plant along the street.
4. Will the tree obstruct the view of traffic? Street corners should have a clear view of oncoming traffic. Evergreens do not make good boulevard trees.
5. Will the tree produce fruit or seed that will interfere with pedestrian traffic?

## Alder

*Manchurian Alder Prairie Horizon* *Alnus hirsuta* 'Harbin' Alders prefer moist to wet soils but performs well in dryer soils. Prairie Horizon is the most drought tolerant alder evaluated in NDSU trials; rapid growing, medium size tree with dark green leaves. The bark is grayish and beech like. Purple catkins and clusters of brown, cones-like strobiles add interest to the tree during winter. Zone 3

## Apricot

*Manchurian Apricot* *Prunus armeniaca* var. *mandshurica* Height 20'

Apricots are known primarily for their delicious fruit. However, cultivars grown for high commercial fruit quality are not winter hardy in northern climates. There are several cultivars that are winter hardy but their fruit is smaller and less juicy. They do make excellent preserves. The hardy Apricot cultivars flower very early in spring with a mass of white or pink flowers covering the bare trees. Late frosts frequently kill the flowers, which prevents fruit development. Leaves are a medium green color and are maintained in good quality throughout the growing season. Fall color is a brilliant gold to orange. This species is the hardiest of the fruiting apricots.

### Manchurian Apricot Cultivars:

*Mandan Apricot* *Prunus armeniaca* var. *mandshurica* 'Mandan' Height 20' A vase-shaped tree with fruits 1 1/3 inches in diameter and have a red blush. Introduction from USDA Mandan Research Station.

*Moongold Apricot* *Prunus armeniaca* var. *mandshurica* 'Moongold' Height 15' A University of Minnesota introduction. Blooms in late April. The golden-orange colored fruits are 1 3/4 inch in diameter. Fruit is good for canning, jams or eaten fresh

*Scout Apricot* *Prunus armeniaca* var. *mandshurica* 'Scout' Height 15' A Canadian introduction which has bronze gold blushed with red 1 1/2 -inch fruits, which ripen in early August. The fruit is good for canning and jams or eaten fresh. Blooms early May.

*Sungold Apricot* Prunus armeniaca var. mandshurica 'Sungold' Height 15' A University of Minnesota introduction. The fruit is a bright, clear gold color, 1¼ inch in diameter. The fruit is good for eating fresh, sauce or jams. Blooms late April and ripens late August.

## **Arborvitae**

### Arborvitae Cultivars:

*Brandon Arborvitae* Thuja occidentalis 'Brandon' Height 12-25' Brandon has spire like growth with soft green foliage. Rated excellent for the prairies, with little or no burn problem. Requires little or no trimming. Prefers eastern or northern exposures.

*Globe Arborvitae* Thuja occidentalis 'Woodwardii' Height 3-5' This arborvitae has rich green color and retains its globe d shape without trimming. Good in full sun or light shade.

*Hetz Midget Arborvitae* Thuja occidentalis 'Hetz Midget' Height 2' Dense globe-shaped form. Requires no shearing to maintain globe form. Slow grower.

*Holmstrup Arborvitae* Thuja occidentalis 'Holmstrup' Height 4-5' A compact plant with an upright habit. Bright green color and light bushy foliage, gives the plant a textured appearance; does well in light shade.

*Little Giant Arborvitae* Thuja occidentalis 'Little Giant' Height 6', Spread 6' Beautiful dense, slow growing globe with rich bright green foliage.

*Pyramidal Arborvitae* Thuja occidentalis 'Pyramidalis' Height 12-25' A fast growing, hardy, narrow cone-shaped evergreen. Bright green soft foliage. Shape easily maintained by minimum shearing.

*Sherman Arborvitae* Thuja occidentalis 'Shermanii' Height 25-30', Spread 8-12' An introduction from Sherman Nursery Co. in Iowa. It has much heavier foliage than other types of Arborvitae. Grows in a broad, pyramidal form.

*Skybound Arborvitae* Thuja occidentalis 'Skybound' Skybound has similar growth habit of Brandon but offers improved hardiness and richer dark-green foliage with a whorled texture. Developed at Boughen Nurseries in Valley River Manitoba and is rated as Zone 2.

*Siberian Arbovitae* Thuja occidentalis 'Wareana' Height 10-18', Spread 10-18' A broad pyramidal cultivar that is more dense and rounded than the species American Arborvitae. When young it has a broad, pyramidal or tear-shaped crown, becoming broadly rounded in form with age. It is very resistant to windburn or drying winds.

*Techny Arborvitae* Thuja occidentalis 'Techny' Height 12-15' Fast growing, makes excellent screens and tall sheared hedges.. Good in sun or light shade and has very dark green color.

*Techny Globe Arborvitae* is the same plant as above, but has been sheared into a globe. Additional pruning will need to be done to maintain globe shape.

***Ash (Fraxinus) is a dominant species in most of our North Dakota communities; this genus is threatened by the Emerald Ash Borer, which is an introduced insect that has devastated the ash population in parts of Michigan and surrounding states. This insect has the potential to decimate our ash trees in ND; it would be in the long term interest of our communities to plant a larger number of species and plant few if any Ash trees. Increasing species diversity is the best strategy for the long term health of our community forests. Emerald Ash Borer affects all trees inside the red boxes.***

## **Ash Trees**

**Black Ash** Fraxinus nigra Height 30-35', Spread 15-30' A medium to large tree which grows best in bottomlands and other moist sites. Tolerant of flooding or drought conditions; slightly more upright and often narrower in appearance than green ash. The crown shape is variable, round, oval to oblong-oval, densely branched. The leaves are Dark-green, becoming yellow in the fall. (Susceptible to Emerald Ash Borer)

### Black Ash Cultivars:

**Fall Gold** Fraxinus nigra 'Fall Gold' Height 50', Spread 20-25' The tree has a narrow upright habit and bright golden-yellow fall foliage, extremely hardy. (Susceptible to Emerald Ash Borer)

**Green Ash** Fraxinus pennsylvanica Height 50-60', Spread 30-40' The growth habit is pyramidal in youth, developing an upright, spreading habit as it matures. The crown is irregular and varies from tree to tree. The leaf color is often a shiny medium to dark green in summer changing to yellow in the fall. The tree transplants easily and will grow almost anywhere. Once the tree is established it can tolerate drought conditions. There are many cultivars, which have better attributes than seed grown trees. (Susceptible to Emerald Ash Borer)

### Green Ash Cultivars:

**Bergeson** Fraxinus pennsylvanica 'Bergeson' Height 50-60', Spread 20-25' The tree has an upright oval crown with a straight trunk a good choice where lateral space is limited. It is a rapid grower, a very hardy seedless cultivar. (Susceptible to Emerald Ash Borer)

**Dakota Centennial** Fraxinus pennsylvanica 'Wahpeton' Height 40-50', Spread 40-45' Introduction by North Dakota State University. It has a symmetrical rounded crown with a strong central leader. It grows vigorously, is seedless, very hardy and has dark green foliage. (Susceptible to Emerald Ash Borer)

**Foothills Ash** Fraxinus pennsylvanica 'Foothills' Height 40', Spread 30' Green ash developed in Canada. Very hardy (-40 degrees). Uniform tree with straight trunk and good crown; Similar to Patmore but is slightly tighter in form and needs little pruning. (Susceptible to Emerald Ash Borer)

**Kindred** Fraxinus pennsylvanica 'Kindred' It has excellent growth, with a strong central leader and a good symmetrical, rounded crown. It is a male selection from Kindred, ND, is seedless and very hardy. (Susceptible to Emerald Ash Borer)

**Marshall Seedless** Fraxinus pennsylvanica 'Marshall Seedless' Height 50-60' Spread 40' The tree has a broad, irregular habit, with glossy, dark green leaves and can develop an attractive clear yellow fall color in seasons with favorable conditions. (Susceptible to Emerald Ash Borer)

**Patmore** Fraxinus pennsylvanica 'Patmore' Height 45', Spread 35' Symmetrically shaped oval tree with glossy, dark green foliage. Canadian introduction. (Susceptible to Emerald Ash Borer)

**Prairie Dome** Fraxinus pennsylvanica 'Leeds' Height 40-50', Spread 35-40' Introduced by North Dakota State University. Selected for it's attractive glossy, dark green leaves and nearly uniform globe shape. (Susceptible to Emerald Ash Borer)

**Prairie Spire** Fraxinus pennsylvanica 'Rugby' Height 50-60', Spread 20-30' Selection introduced by North Dakota State University. It grows rapidly, with a compact, broad columnar to narrow pyramidal crown. It has good yellow fall color and produces no seed. (Susceptible to Emerald Ash Borer)

*Summit* Fraxinus pennsylvanica 'Summit' Height 45', Spread 25' Upright pyramidal, symmetrical, straight central leader, excellent golden yellow fall color. Minnesota selection. (Susceptible to Emerald Ash Borer)

### **Hybrid Ash**

*Northern Gem* Fraxinus x 'Northern Gem' Height 50', Spread 40' A hybrid of Black Ash and Manchurian Ash from the Morden, Manitoba breeding program, is a medium to large tree, 50' tall, with medium green foliage that turns yellow in the fall. It develops a globe shaped crown. Like native black ash it is hardy and tolerates moist soil. (Susceptible to Emerald Ash Borer)

*Northern Treasure* Fraxinus x 'Northern Treasures' Height 50', Spread 20' A hybrid of Black Ash and Manchurian Ash from Morden, with a more upright habit, developing an oval shaped crown. Like native black ash it is hardy and tolerates moist soil. (Susceptible to Emerald Ash Borer)

**Manchurian Ash** Fraxinus mandshurica Height 30-35', Spread 25-35' A medium to large tree that develops a very dense oval to rounded crown. The leaves are light green and develop a yellow fall color. The tree is similar to Black Ash, but has a lower moisture requirement. The one year old twigs have a golden color. (Susceptible to Emerald Ash Borer)

### Manchurian Ash Cultivars:

*Mancana Ash* Fraxinus mandshurica 'Mancana' Height 40-50', Spread 20-25' It has a dense upright, oval crown, produces no seed and has shiny dark green leaves. Tolerates drought and excess moisture; introduced by Morden Research Station, Morden Manitoba

### **White Ash**

#### White Ash Cultivars:

*White Ash* Fraxinus americana (Not as drought tolerant as green ash. Borderline hardiness)

*Autumn Blaze Ash* Fraxinus americana 'Autumn Blaze' Height 40-50', Spread 25-30' A cultivar introduced by the Morden Manitoba Experiment Station. It has an oval crown and develops a good purple fall color. Winter hardy in zone 3b and produces only light crops of seeds. (Susceptible to Emerald Ash Borer)

*Northern Blaze Ash* Fraxinus americana 'Northern Blaze' Height 40-50', Spread 25-30' Seedless. Outstanding foliage; the leaf is 20% larger than Patmore Ash and the attractive dark-green leaf color is retained throughout the growing season. The growth habit is an upright oval shape during the juvenile stage, developing into an open, round-topped crown at maturity. New twig growth is dark reddish-purple. (Susceptible to Emerald Ash Borer)

### **Birch**

*Northern Tribute™ River Birch* Betula nigra 'Dickinson' Height 35-40' Spread 30-35' River Birch has become popular landscape trees because of their resistance to injury and the bronze birch borer. Northern Tribute™ was selected because of its superior adaptability to the stressful environmental conditions of the Upper Midwest and the Northern Plains – even in zone 3. Upright and oval in habit with ivory colored bark that exfoliates to coppery-bronze. Good quality dark green foliage with yellow autumn color. Zone 3-8

*Crimson Frost Birch* Betula platyphylla var. szechuanica x B. pendula 'Purpurea' Height 30-35', Spread 20-25' Selected for the exfoliating bark that turns white with a cinnamon hue after 3-4 years. The tree is loosely pyramidal, with deep purple-red colored leaves. Fall foliage varies from crimson to orange-yellow. Prefers moist soil; does well in heavy clay soil. Maybe susceptible to bronze birch borer. Hardiness for northern ND not known at this time.

*Dakota Pinnacle Birch* Betula platyphylla 'Fargo' Height 25'-30', Spread 7-8' A 1997 introduction from NDSU A columnar shaped, creamy white barked birch with green leaves which will be superb in space challenged landscapes. It was selected in North Dakota for its form and is tough and adaptable to heat, drought and alkaline soils, with an upright columnar habit. Holds leaves until late October. Borer tolerance is above average. Zone 3

*Prairie Vision Asian White Birch* Betula platyphylla 'VerDale' Height 35-45', Spread 30-35' An upright-oblong hardy and adaptable tree from NDSU. This graceful birch has an upright – oblong to semi pyramidal habit. The bark is white with blackish marking. Autumn brings a golden-yellow leaf color; this cultivar has shown resistant to Bronze Birch Borer. Zone 3

*Paper Birch* Betula papyrifera Height 40', Spread 30' The tree is loosely pyramidal in youth developing an oval rounded crown at maturity. The foliage is deep green changing to yellow in the fall. The bark is chalky white on the trunk and older branches, peeling or easily separated into paper like layers. Paper Birch is more resistant to bronze birch borer than European Birches (*Betula pendula*).

*Renaissance Reflection Paper Birch* Betula papyrifera 'renci' Height 60', Spread 25' Developed in Wisconsin for bronze birch borer resistance. This birch is rapid grower with a distinctive pyramidal habit, bright white exfoliating bark, and nice yellow fall color. Extremely heat resistant, this birch is well suited for use in the home lawn.

*Prairie Dream Paper Birch* Betula papyrifera 'Varen' A paper birch with exceptional snow-white bark, marked exfoliation of bark, quality dark green foliage and excellent golden-yellow autumn foliage coloration. A noteworthy stress-tolerant selection from the Killdeer Mountain seed source in western North Dakota, Prairie Dream is excellent grown single or multi-trunked. High resistant to bronze birch borer attack after 30 years in evaluations. Semi-pyramidal to upright-oval growth habit, becoming broadly-oval with age. Superior adaptation and stress tolerance are valuable attributes of this cultivar. This tree reaches a semi-mature height of 35 to 45 feet in 25 to 30 years. Hardy in USDA Zone 2B-3.

## **Buckeye**

*Ohio Buckeye* Aesculus glabra Height 20-40', Spread 20-40' Ohio Buckeye has a dense oval to round form, branching quite low. It is one of the first trees to leaf out in the spring. The leaves are palmately compound with 5-7 leaflets that are 4-5 inches long. Foliage is medium to dark green and may develop yellow or orange fall color. In spring the tree is covered with many upright panicles of creamy yellowish flowers. Fruit is a glossy brown nut enclosed in a thick husk. Seeds are poisonous.

### Ohio Buckeye Hybrid Cultivars:

*Autumn Splendor Buckeye* Aesculus x arnoldiana 'Autumn Splendor' Height 35-40', Spread 25-30' A small, upright oval to round-headed tree, similar to Ohio Buckeye, but has excellent resistance to leaf scorch. It has glossy dark green leaves, which remain in good condition throughout the growing season. It develops an outstanding maroon red fall color, available in the nursery trade but availability by be limited. Introduced by the University of Minnesota Landscape Arboretum.

*Prairie Torch Hybrid Buckeye* Height: 20-28' A winter hardy hybrid buckeye selected in northern Minnesota. In NDSU trials it grew faster than most buckeyes that were accessions for the first 10-15 years. It produces a dense globose form which broadens with age becoming more mushroom shaped. The foliage is of high quality, fairly coarse and becomes a brilliant orange-red in the fall. Not easy to find in the nursery trade, ask your local nursery about it. Zone 3

**Crabapple** (Persistent – Fruit remains on the tree for an extended period of time.)

Crabapple Cultivars:

*Adams Crabapple* Malus x 'Adams' Height 20-25' Spread 20' The foliage is green, with a reddish tinted in spring. Dense rounded tree form. Flower buds are carmine, flowers are bright pink, fruits dark glossy-red, 5/8", very persistent; excellent disease resistance. Reported to develop orange-red fall color. (Recommended by Herman NDSU)

*Beverly Crabapple* Malus x 'Beverly' Height 20', Spread 20' Zone 3B-4 Leaves are bright green, develops yellow fall color, dense rounded form, Flower buds reddish-pink, opening to white. Fruit is bright glossy red, 1/2 - 2/3's inch, persistent. Very good disease resistant, moderately susceptible to fireblight (Recommended by Herman NDSU)

*Canary Crabapple* Malus x 'Canary' Zone 3B-4 Leaves are green developing a yellow, tinged with orange in the fall. Open spreading growth habit, abundant white flowers, Fruit 1/3" shiny golden yellow. Birds will eat them so not litter problem. (Recommended by Herman NDSU)

*Cardinal Crabapple* Malus x 'Cardinal' Height 15-20' Spread 15-20' Zone 3B-4 Leaves glossy purple red to purple, brilliant deep red fall color. Upright, spreading developing a flat top with age. Flower buds deep red, flowers bright red and fade to magenta-pink. Fruit sparse, deep red 1/3"–1/2" (Recommended by Herman NDSU)

*Centurion Crabapple* Malus x 'Centzam' Height 20-25', Spread 15' Leaves red-purple in spring with purple-red tint in summer. The tree is upright in form, becoming more open and spreading with spire-like branches. Flowers are rosy-red, showy. Glossy cherry-red fruits persist for several months in the fall; has shown excellent disease resistance. Some yellow to red fall color may develop. (Recommended by Herman NDSU)

*David Crabapple* Malus x 'David' Height 12', Spread 12' Medium green foliage color. Semi-horizontal, round spreading form, Flower buds pink, flowers white, 3/8", scarlet, persistent fruits, May develop alternate year fruit-bearing pattern with excellent disease resistance. The fall color is a golden-yellow.

*Donald Wyman Crabapple* Malus x 'Donald Wyman' Height 20', Spread 24' The foliage is semi-glossy dark green in color. Spreading rounded form. Flower buds are rosy-pink, then open to near white. Fruits glossy-red 3/8 - 1/2 inch, very persistent in to winter; excellent disease resistance. (Recommended by Herman NDSU)

*Indian Magic Crabapple* Malus x 'Indian Magic' Height 20-25', Spread 20' Dark green foliage. Open rounded form. The flower color is a rich, deep pink. Glossy, orange-red fruits, (1/3-1/2 inch) are very persistent. Disease resistance is very good to date. Red-orange fall color is usually excellent. (Recommended by Herman NDSU)

*Indian Summer Crabapple* Malus x 'Indian Summer' Height 15-20', Spread 15- 20' Bronze green summer foliage; broadly rounded form. The flowers are rose-red and showy. Bright red fruits (5/8-3/4 inch) are very persistent. Excellent disease resistance to date. (Recommended by Herman NDSU)

*Jack or Korean Crabapple* Malus x baccata 'Jack' Height 20', Spread 20' Foliage is semi-glossy, green. Trees develop rounded crowns. Flower buds are pinkish-white, open pure white; fruits small, 3/8", variably reddish blushed, semi-persistent; excellent disease resistance; yellow fall color, very hardy. (Recommended by Herman NDSU)

*Molten Lava Crabapple* Malus x 'Molazam' Height 14' Spread 20' The buds are dark pink and the flowers are white. The branching is irregular and the tree has a semi-weeping habit (Recommended by Herman NDSU)

*Prairie Fire Crabapple* Malus x 'Prairie Fire' Height 15-20', Spread 20' Maroon-red leaves maturing to bronze-green. Crimson buds, bright rosy-red flowers and dark red 3/8-1/2 inch persistent reddish-maroon fruits. Bark is glossy, dark red. The tree is upright when young, round-spreading with age.

*Purple Prince Crabapple* Malus x 'Purple Prince' Zone 3B-4 Height 20', Spread 20' Spring foliage purple developing to a bronze green through summer, purple-red fall color. Young trees oval becoming rounded with age; the Carmine-red flower buds open to bright rosy-red narrow petals. Fruit is abundant, non-showy bluish purple 3/8 to 1/2" persistent. Bark is cherry like and has excellent disease resistance. (Recommended by Herman NDSU)

*Purple Spire Crabapple* Malus x adstringens 'Jefspire' Height 15', Spread 6' New introduction from Canada. Purple Spire has a columnar tree form and grows slowly compared to the Rosybloom cultivars currently on the market today. It produces a low number of pink spring flowers and few fruit. Its purple foliage is especially obvious in spring and fall. The most notable characteristics of Purple Spire are its purple foliage color and dwarf columnar habit. It serves as an ideal accent tree or summer privacy screen. Hardiness: Zone 3

*Red Splendor Crabapple* Malus x Red Splendor' Height 20-25', Spread 20' Reddish-green spring foliage, becomes mostly green, semi-glossy. The tree form is spreading, fairly dense. Flower buds rosy, open pink, they do fade shiny, cherry-like, 1/2-inch red, extremely persistent fruits. Good disease resistant, moderate fireblight susceptible. Fall color coppery to bronze-red. Introduced by Bergeson Nursery. (Recommended by Herman NDSU)

*Selkirk Crabapple* Malus x 'Selkirk' Height 20' Spread 25-30' Semi-glossy, reddish-purple spring foliage, becoming mostly green. Rounded, spreading tree becomes somewhat umbrella-shaped with age Rosy-pink flowers; 3/4" glossy red fruit, not persistent beyond November 1. Very hardy; good disease resistance. (Recommended by Herman NDSU)

*Spring Snow Crabapple* Malus x 'Spring Snow' Height 25-30', Spread 22' Bright green, semi-glossy foliage. Narrow upright-oval form, becomes rounded with age. Pure white fragrant flowers; produce no fruits. Good disease resistance to date in Northern Plains. Good heat tolerance. Some yellow fall color develops. (Recommended by Herman NDSU)

*Starlite Crabapple* Malus x 'Jefstar' Height: 25' Spread 15' Hardiness: Zone 2 A new selection of flowering crabapple for the northern plains. Starlite offers dark-green, glossy, disease-resistant foliage to apple scab that is an improvement over Spring Snow in Manitoba. The white flowers are evident in mid-May followed by red candy-like fruit that is retained into the winter months.

*Thunderchild Crabapple*      Malus x 'Thunderchild' Height 15-20', Spread 15-20' Purple foliage is its major asset and Upright, round-spreading form. The flowers are a deep rosy-pink. Purple-red fruits produce only in moderate numbers, semi-persistent. To date it has shown good to excellent disease resistance in the Northern Plains. (Recommended by Herman NDSU)

*White Candle Crabapple*      Malus x 'White Candle' Height 12-15', Spread 2-3' Dark green foliage with long leaves. The form is narrowly erect; flower buds dark pink, open to near white, many flowers, semi-double. Fruits 5/8', red, medium numbers produced, not heavily set, only semi-persistent and have average to good disease resistance. (Recommended by Herman NDSU)

*Winter Gem Crabapple*      Malus x 'Glen Mills' Zone 3B-4 Height 12', Spread 12' Leaves are bright green, develops an excellent golden, orange-tinged fall color., Flower buds are pink, flowers open white and the fruit is glistening red 1/3" persistent. (Recommended by Herman NDSU)

## **Coffeetree**

*Kentucky Coffeetree*      Gymnocladus dioica Height 50-60', Spread 40-50' A picturesque tree in winter with deeply furrowed bark and stout branches. Prefers deep moist soil, but is adaptable to many conditions such as alkaline soil, salt and drought. Foliage is bluish green turning yellow in the fall. Seedpods are mahogany in color and up to eight inches long. The common name comes from use as a coffee substitute by early European settlers. However, coffee made from the roasted seeds is awful. The gum inside the legume was used medicinally. Both gum and seeds are toxic when raw.

### Kentucky Coffeetree Cultivar:

*Stately Manor Coffeetree*      Gymnocladus dioica 'Stately Manor' Height 50' Spread 20', A male cultivar introduced by University of Minnesota. The tree is narrower and more upright than the species. Male selection so it produces no pods.

## **Corktree**

*Amur Corktree*      Phellodendron amurense Height 25-35', Spread 30' The Amur Corktree is a slow growing, spreading tree. The trunk and large branches are ridged and furrowed to give a cork-like appearance. Leaves are dark, glossy green and change to yellow or bronze in fall. White flowers are fairly inconspicuous but are followed by clusters of berries that change from green to black. These are produced only on female trees. This tree is easily transplanted and tolerates a wide range of soils and conditions. It has no serious insect or disease problems. (Corktrees are not recommended for dry stressful sites.) (Zone 3-4)

*Sakhalin Corktree*      Phellodendron schalinense Height 40-50', Spread 30-35' Similar to Amur Corktree, but has a more vase shape appearance and is considered harder.

### Sakhalin Corktree Cultivar:

*His Majesty Corktree*      Phellodendron schalinense 'His Majesty' Height 25-30', Spread 30' A male selection from University of Minnesota. Has a rounded, open form and is slightly harder than the species.

## **Dogwood**

*Snow Mantle Dogwood*      Cornus racemosa 'Jade' Height 10-15', Spread 6-8' Developed by NDSU. Can be grown single or multi stemmed. Blooms profusely in spring with white flowers followed by white fruit, which persist, into fall. Foliage is light green developing a purple color in the fall.

## **Elm (Shown to be Dutch Elm Disease Resistant)**

*Cathedral Elm* Ulmus x 'Cathedral' (Ulmus pumila X Ulmus davidiana var. japonica)  
Height, 40-50', Spread 40-60' The form of the tree is broadly vase shaped. Cathedral is a distinct variety of elm tree, which is characterized by its resistance to Dutch elm disease. This variety is also highly tolerant to Verticillium wilt disease, limited susceptibility to black leaf spot disease, and good resistance of traumatic injury from climatic elements. The tree develops into a broadly vase shaped tree. Introduced by the University of Wisconsin

*Discovery Elm* Ulmus davidiana var. Japonica 'Discovery' Height 40', Spread 40' A vase-shaped tree. Reported to be resistant to Dutch Elm Disease, phloem necrosis, elm leaf beetles and aphids. Lower lateral branches need to be removed or the tree becomes somewhat dwarfed and bushy.

*Prairie Expedition American Elm* Ulmus Americana 'Lewis & Clark' This selection is a TRUE American Elm selected from a lone survivor along the Wild Rice River. When inoculated with the Dutch elm disease fungus the tree showed high resistance. The foliage is dark green and it develops the classic umbrella shape that typifies American Elm and should be in the nursery trade in the near future.

*Jacan Elm* U. davidiana var. japonica 'Jacan' Height 30' Spread 25' The Japanese Elms have a form more similar to the American Elm than most other species. A DED resistant elm, which is also resistant to the elm leaf beetle. Elms are adaptable to urban conditions and grow rapidly. Hardy to zone 3a.

*Vanguard Elm* Ulmus 'Morton Plainsman' Height 40-50' Spread 40-50' This hybrid of Japanese and Siberian Elm closely resembles Japanese Elm. Selected for its excellent Dutch Elm disease resistance, glossy deep green foliage and resistance to elm leaf beetle damage. Vanguard will tolerate drought prone areas of the Midwest and Great Plains. Selected and introduced by Morton Arboretum. Shape: Loosely rounded, Foliage: Dark green in the summer and no significant fall color, prefers full sun. Zone: 3-7

**Hackberry** Celtis occidentalis Height, 50-75', Spread 50' Similar in appearance to the American Elm with light green foliage. Hackberry has rough, corky bark and is tolerant to drought, alkaline soil, wind, and pollution. Develops a deep root system.

## **Hawthorn**

*Arnold Hawthorn* Crataegus arnoldiana Height 20', Spread 20' Narrow crown. Lustrous dark green leaves and red fruit.

*Snowbird Hawthorn* Crataegus x mordenensis 'Snowbird' Height 12-15', Spread 20' The tree has a small, upright rounded form with dark green leaves. Developed at Morden Research Station by hybridizing a native hawthorn with a doubled-flowered European Hawthorn. Has double white flowers, produces a small number of fruit. Hardier than Toba.

*Thornless Cockspur Hawthorn* Crataegus crusgalli var. inermis Height 15-18', Spread 18-20' Small ornamental tree with rust free, dark green glossy foliage turning orange in the fall. Flowers are abundant in June followed by small, bright red fruits.

*Toba Hawthorn* Crataegus x mordenensis 'Toba' Height 12-15', Spread 12' Fragrant, large double white flowers turning pink. Glossy foliage not subject to leaf spot defoliation in the summer. Red fruit ½" in diameter. Interesting twisted trunk. Fireblight can be a problem with Toba Hawthorn.

## Juneberry

*Alleghany Serviceberry* *Amelanchier laevis* Height 24-30', Spread 20-25' Small tree to large shrub similar to but larger than *A. alnifolia*. Flowers are white and bloom in early May. The fruit ripens in late June - July and purple to nearly black in color. Many cultivars have been developed, some ornamental others for fruit production.

*Autumn Brilliance Apple Serviceberry* *Amelanchier x grandiflora* 'Autumn Brilliance' Height 20-25', Spread 15-20' Rounded form, Heavy stems covered with white blossoms in the spring. Leaves are small blue-green developing a brilliant orange-red in the fall. Showy sweet purplish-black fruit.

*Juneberry or Saskatoon* *Amelanchier alnifolia* Height 8-10', Spread 5-10' The small tree or large shrub is upright spreading, often leggy. The leaves are dark green and showy white flowers white, are produced in mid-May. The fruit is usually blue, sometimes white and ripen in June to early July. Adaptable to a wide variety of soil, and will grow in sun or partial shade. There are many cultivars available some are ornamental others are being grown for commercial fruit production.

## Juniper

### Eastern Red Cedar

*Skyrocket Juniper* *Juniperus virginiana* 'Skyrocket' Height 9-13' Spread 2' Extremely slender columnar form with tight, compact branching. Bluish-green foliage, requires little trimming to maintain shape.

***Rocky Mountain Juniper*** *Juniperus scopulorum* Height 30-40', Spread 3-15' The tree is usually a narrow pyramidal tree often with several stems. The leaf color varies from dark green, bluish green, glaucous or light green. It withstands droughty conditions.

There are many cultivars available here is a listing of a few.

*Rocky Mountain Juniper Cultivars:* (The following is a short list of the many cultivars available.)

*Blue Trail Juniper* *Juniperus scopulorum* 'Blue Trail' Height 15-20', Spread 4-6' Attractive form of Rocky Mountain Juniper with silvery-blue foliage.

*Grizzly Bear Juniper* *Juniperus scopulorum* 'Grizzly Bear' . Height 10-15' Spread 6-8' A dense, broadly pyramidal grower with grayish green foliage. Grizzly Bear is a very hardy juniper cultivar which is quite resistant to winter burn and grows uniformly.

*Medora Juniper* *Juniperus scopulorum* 'Medora' Height 10-12' Spread 6-8' A selection from the Badlands of North Dakota. Medora is a slender-shaped variety having good blue-green color and needs very little shearing to produce a narrow columnar tree. Slow growing. An excellent columnar blue Juniper, hardy and acclimated for the northern prairie states and provinces.

*Sutherland Juniper* *Juniperus scopulorum* 'Sutherland' Height 15-20', Spread 4-6' A strong grower that becomes a broad pyramidal at maturity. The foliage is silvery green.

*Tolleson's Blue Weeping Juniper* *Juiperus scopulorum* 'Tolleson's Blue Weeping' Height 20', Spread: 10' Weeping form of Rocky Mountain Juniper with silver-blue foliage on arching branches.

*Welch Juniper* *Juniperus scopulorum* 'Welchi' Height 10-12' Cone shaped, upright juniper having compact, dense branching habit. The new growth is silvery, changing to bluish-green color and needs very little shearing.

## Larch

*Siberian Larch* *Larix siberica* Height 50-65', Spread 25' A large pyramidal deciduous conifer with spreading horizontal branches. Needles are densely clustered on short spurs. The needles are light green in spring, dark green in summer, golden yellow in the fall and absent in winter. Larch can tolerate flood conditions or standing water. The bark is scaly, resembling that of a spruce tree, but the inner bark of larch is a vivid reddish purple

## Lilac

**Japanese Tree Lilac** *Syringa reticulata* Height 25', Spread 25' Very hardy and pollution-tolerant with large, fragrant, creamy-white flower panicles in June after other lilacs have bloomed, it is grown as a shrub or small tree

### Japanese Tree Lilac Cultivars

*Golden Eclipse Tree Lilac* *Syringa reticulata* 'Golden Eclipse' Height 20' Spread 15' Sources vary on the hardiness of this cultivar, some say Zone 3 others Zone 4. If you want to try a variegated tree lilac this maybe one to try. Introduced by J. C. Bakker Nurseries. In spring, new foliage emerges green with a darker green center. The edge of the leaf gradually turns to bright gold, and with the dark green 'shadow' in the center of the leaf, gives the illusion of an eclipse. Creamy white flowers in late spring, early summer.

*Ivory Pillar Lilac* *Syringa reticulata* 'Willamette' Height 20-25', Spread 15' Compact, round, dense form with deep green leaves and heavy white blooms in July, drought tolerant. Good street tree.

*Ivory Silk Lilac* *Syringa reticulata* 'Ivory Silk' Height 25', Spread 15' A selection with a sturdy, more compact, oval growth habit than the species. Branches are ascending which allows it to be successfully used in smaller spaces. Tested and found to be hardy by NDSU, most prevalent cultivar in nursery trade.

*Summer Snow Lilac* *Syringa reticulata* 'Summer Snow' Height 20-25', Spread 15-20' Smaller than species has a rounded crown form with dark, glossy green leaves, reddish brown bark and more compact crown than the species. Produces a large number of blooms.

*Snow dance Japanese Tree* *Syringa reticulata* 'Bailnce' Height: 18', Spread: 20' Zone: 3-7. Snow dance flowers well annually and begins flowering at an earlier age than the species. Large, fragrant panicles of creamy white bloom in June. This sterile variety produces no untidy, brown seedheads. Lustrous, dark green foliage is slightly larger and darker than the species. Graceful, vase-shaped habit with attractive, shelved branching. A pest and disease free lilac tree for residential and park use

**Pekin Lilac** *Syringa pekinensis* Height 18' Spread: 15' Similar to Japanese Tree Lilac but smaller with a more informal (multi-stemmed) habit and finer texture through out. The bark often exfoliates in rich brown flakes or sheets. Pekin Lilac is usually multi-stemmed and has an upright arching, loose and open appearance. The flowers are fragrant, small, and creamy white and bloom before Japanese Tree Lilac.

### Pekin Lilac Cultivars:

*Copper Curls* *Syringa pekinensis* 'SunDak' Height 20-25' Spread 15-20' This cultivar can be grown single stem or multi-stem tree. The bark is orange-copper in color and exfoliates in shaggy curls similar to River Birch. It produces abundant creamy-white flower panicles. The tree has an upright broad oval to rounded form. Introduced by NDSU. Zone 2B-3

*Summer Charm Lilac* *Syringa pekinensis* 'Summer Charm' Height 20', Spread 15' Upright, spreading small tree to with dark green glossy foliage contrasts with creamy white flower panicles. The foliage turns yellow in the fall. A rapid growing cultivar, reported to have good disease resistance.

## **Linden or Basswood**

*American Linden* *Tilia americana* Height 60-70', Spread 40-50' The tree is pyramidal in youth and matures into a rounded tree. The leaves are large dark green; heart shaped 4-8" long and almost as wide. The fall color is a pale yellow. The trees are a rapid grower once established, provides excellent shade and has fragrant pale yellow flowers. Transplants well, prefer deep, moist fertile soil but will adapt to drier soils.

(The following is a short list of the many cultivars available.)

### *American Linden Cultivars:*

*American Sentry* *Tilia americana* 'Sentry' Height 60', Spread 30-40' An improved selection of the species; upright branching habit; yellow fall color; the young branches have a pretty silvery-gray bark.

*American Dream Linden* *Tilia americana* 'Clarence' Height 45-50', Spread 25' Canadian introduction; the form is pyramidal becoming more open when mature. The foliage is darker than the species; growth is more controlled resulting in a slightly more compact uniform habit. Zone 2 Newer introduction, it may be hard to find in the nursery trade.

*Boulevard American Linden* *Tilia americana* 'Boulevard' Height 50-60', Spread 25-30' Selected for its narrow pyramidal habit of growth. Ascending branches.

*Frontyard Linden* *Tilia americana* 'Bailyard' Height 60-75', Spread 40' Selected for its excellent, symmetrical branching habit. Broadly pyramidal when young, becoming rounded as it matures.

*Redmond Linden* *Tilia americana* 'Redmond' Height 40-60', Spread 25-30'. A large-leafed tree with a pyramidal habit, the branches show a reddish color in winter. Fastest growing of the Lindens.

*True North Linden* *Tilia Americana* 'Duros' Height 45-50', Spread 15' A Canadian introduction with upright habit providing ideal form where width is a concern. Bark is white when young, introduced by Rick Durand, Portage la Prairie Manitoba. Zone 2 A new introduction; it may be hard to find in the nursery trade.

*Littleleaf Linden* *Tilia cordata* Height 30-35', Spread 25-30' This tree is native to Europe and has a dense pyramidal to rounded crown. Leaves are dark green, bluish green beneath and turn yellow in the fall. The flowers are creamy-white to pale yellow and very fragrant.

*Littleleaf Linden Cultivars:* The following is a short list of the many cultivars available.)

*Corinthian Linden* *Tilia cordata* 'Corzam' Height 25-45' Spread 10-16. Compact pyramidal formal shape created by uniform spacing of limbs around straight central leader, dense branching, lustrous green leaves, leaves smaller and thicker than species.

*Golden Cascade* *Tilia cordata* 'Golden Cascade' Height 35-40' A linden tree with strong vigor and long cascading branches. This cultivar is to replace some of the weeping trees that have severe insect and disease problems such as Cutleaf Weeping Birch. Golden Cascade has medium sized leaves that turn a rich golden yellow color in fall. The seed produced by this hybrid is not viable. Golden Cascade is an attractive large accent tree and an excellent choice for large spaces such as parks. Introduced by Jeffries Nurseries.

*Greenspire Linden*      *Tilia cordata* 'Greenspire' Height 40-50', Spread 30-35'. Greenspire has a straight trunk with and narrow, pyramidal crown, small, heart-shaped, dark green leaves; makes a good street tree.

## Hybrid Lindens

*Dropmore Linden*      *Tilia x flavescens* 'Dropmore' Height 30' The tree has a pyramidal crown with dark green foliage which turns yellow in fall. The flower color is cream colored and are produced July, very fragrant. Not tolerant of high pH soils

*Glenleven Linden*      *Tilia x flavescens* 'Glenleven' Height 40-50', Spread 30-35', Faster growth rate than Greenspire with a more open habit and straight trunk. Heart-shaped, dark green leaves turn yellow in fall.

*Norlin Linden*      *Tilia x* 'Ronald' Height 35-45', Spread 30', The foliage is dark green leaves turning yellow in fall, fast growing, great resistance to sunscald and leaf gall, develops into a broad pyramidal tree, hardy tree for northern plains and prairies. Introduced by Jeffries Nursery, Manitoba

*Shamrock Linden*      *Tilia x* 'Baileyi' Height 40-50', Spread 30' The foliage is dark shiny green turning to a yellowish green in the fall. The tree is similar to Greenspire, but with stouter branching and a less dense open canopy. The branching is uniform all around the trunk. Introduced by Bailey Nursery, Minnesota.

*Wascana Linden*      *Tilia x flavescens* 'Wascana' Height 30-35' The tree's form is broadly pyramidal, with dark green foliage. The tree is very dense, very hardy and tolerant of poor soil conditions.

## Mongolian Linden

*Mongolian Linden*      *Tilia mongolica* Height 30', Spread 25' This is one of the smallest of the lindens has a typical attractive rounded habit. The leaf of Mongolian Linden is more birch-like than linden-like and is fine textured for a linden. The leaves are a lustrous dark green and develop a nice yellow fall color. The species seems to be aphid resistant. Zone 3

### Mongolian Linden Cultivar:

*Harvest Gold Linden*      *Tilia mongolica* 'Harvest Gold' Height 30-40', Spread 25-30' The cross between Mongolian Linden and Little Leaf Linden is the first cultivar of its kind on the market. Harvest Gold is known for its exfoliating bark, golden buds and consistent yellow/gold fall color. Harvest Gold is very resistant to sunscald and is the only hardy Linden cultivar that is totally resistant leaf spot. The seed produced are not viable. The upright compact growth makes this tree an excellent choice for an accent, street and shade tree, particularly in areas requiring a more compact tree. A Jeffries Nurseries introduction and considered to be hardy to zone 2.

## Locust Tree

*Black Locust*      *Robinia pseudoacacia* Height 40', Spread 25' This very fast growing tree develops an oval form. White fragrant, flowers are borne in drooping clusters, appear after the leaves have emerged. The flowers are excellent bee forage. Black Locust is hard wooded, grows best in a sunny location and tolerates any soil that isn't swampy. The fruit is a brown pod and the bark is coarse and fissured. (Find a hardy northern seed source.) Zone 4

### Black Locust Cultivar:

*Purple Robe Locust*      *Robinia pseudoacacia* 'Purple Robe' Height 40-50', Spread 25-35'

A beautiful globe locust with dark rose-pink flowers the foliage emerges as a bronze red before turning a bronzy green for the summer, then yellowish in the fall. The flowers are born late May into June, reportedly drought tolerant and hardy to zone 3.

## **Honeylocust**

**Thornless Honeylocust** *Gleditsia triacanthos* var. *inermis*

Thornless Honeylocust Cultivars:

*Imperial Honeylocust* *Gleditsia triacanthos* var. *inermis* 'Impcole' Height 25-30' Spread 25-30' The foliage is bright green turning yellow in the fall. Imperial is a strong; graceful spreading variety with dainty, refined foliage. This variety is more compact and produces fewer seedpods than other varieties. Zone 3-4

*Northern Acclaim* *Gleditsia triacanthos* var. *inermis* 'Harve' Height 35-45', Spread 30-35' Developed by NDSU, where it out performed other honey-locust cultivars in winter hardiness. This honeylocust is thorn less and seedless. The form is upright, similar to Skyline and gradually widens with age. This sturdy and vigorous is drought resistant as well. Dark green foliage develops a yellow fall color.

Zone 3

*Skyline Honeylocust* *Gleditsia triacanthos* var. *inermis* 'Skycole' Height 50', Spread 30-50' A stately and unusual variety with distinctive pyramidal form. Develops a strong, sturdy trunk and shapely crown and dark green foliage, turning golden-yellow in the fall.

**Ironwood**, *American Hophornbeam* *Ostrya virginiana* Height 30-35', Spread 25' A hardy medium size tree with slender spreading branches. The foliage is bright green turning to a golden yellow in the fall, then brown, remaining on the tree into winter. The fruit look like hops and add interest in late summer. A good street or lawn tree, but slow to establish for two to three years. Bark exfoliates, peeling into strips.

## **Maple**

**Amur Maple** *Acer ginnala* Height 15-20' Spread 15' Small rounded graceful tree or large shrub with an overall irregular head with spreading slender branches. Foliage is medium green developing to a scarlet red in the fall.

Amur Maple Cultivars: (The following is a short list of the many cultivars available; some may not produce a good tree form Amur Maple.)

*Embers Amur Maple* *Acer ginnala* 'Embers' Height 15-20', Spread 15' Rounded tree with medium green foliage and red fruit (Samaras). Fall color is scarlet.

*Flame Amur Maple* *Acer ginnala* 'Flame' Height 20', Spread 15' A seed produced variety introduced from a selected seed source by the USDA Soil Conservation Service. It is similar in all respects to Amur Maple except showing more consistent fiery red fall color.

**Boxelder (Manitoba Maple)** *Acer negundo* Height 40-50', Spread 40-50' The tree form is rounded to broad-rounded shape at maturity. The multi-stemmed tree will give a ragged appearance. Boxelder is a vigorous grower, especially at a young age and will tolerate a wide range of soil types. Foliage is light green to gray green, fall color yellowish brown. All Boxelders are sensitive to 2-4D herbicide.

### Boxelder Cultivars:

*Baron Box Elder* Acer negundo 'Baron' Height 35-50', Spread 30-35' Seedless selection from Morden Research Station, Manitoba. Has an upright oval form, green leaves, fall color is insignificant.

*Sensation Box Elder* Acer negundo 'Sensation' Height 20-25', Spread 15-20' This selection has a rounded shape and is an improvement over the species, with slower, more controlled, uniform growth habit, better branch structure and lovely bright red fall color.

### **Hybrid Maples**

#### **Amur X Tatarian**

*Venture Maple* Acer x 'Ventura' Height 20' Spread 15' A tree form selection hybrid seedling of Amur x Tatarian Maple selected by Rick Durand of Prairie Shade Nursery. A vigorous grower, hardy to zone 2, retains its upright form and tolerates alkaline soils. The foliage develops an orange-red fall color.

**Freeman Maples** Hybrid maple, parents are Red Maple and Silver Maples, we do not know if they are fully adapted for North Dakota winters and soils. The trees should be planted in limited numbers until more is known about these cultivars.

*Autumn Blaze Maple* Acer x fremanii 'Jeffersred' Height 50-60', Spread 40' Develops a dense oval crown with ascending branches, drought tolerant and tolerant of most soils Fall color is orange-red.

*Sienna Glen Maple* Acer x fremanii 'Sienna' Height 40', Spread 40'  
Sienna Glen has a very uniform branching habit that naturally makes an attractive pyramidal form it has rich green summer foliage which gives way to a good orange/red fall color. Adaptability to a wide variety of soil conditions with fast growth and it resists wind breakage very well; zones 3 to 6.

*Scarlet Sentinel Maple* Acer x fremanii 'Scarsen' Height 40-45'; Spread 20-25' A fast upright grower in youth developing an oval to rounded shape. Fall color yellow-orange to orange-red.

**Silver Maple** Acer saccharinum Height 60', Spread 30-40' The foliage is light green above and silvery beneath, developing a yellow fall color. Silver Maples are fast growing trees, developing a loose oval form. The tree is tolerant of a wide variety of conditions, but iron chlorosis can be a problem in high pH soils (Alkaline).

### Silver Maple Cultivars

*Silver Cloud Maple* Acer saccharinum 'Silver Cloud' Height 50-60' Spread 30' Developed at Morden Research Station Manitoba, A hardy Silver Maple selected for its upright dense oval crown, tendency to retain central leader and reduce basal sprouting Golden Yellow fall color. The trees should be planted in large spaces, an appropriate tree in residential and parkway plantings.

*Silver Queen Maple* Acer saccharinum 'Silver Queen' Height 50', Spread 40' Vigorous grower. A selection of Silver Maple with better, more refined growth habit; light green leaves with silver underneath.

*Skinner's Cutleaf Maple* Acer saccharinum 'Skinneri' Height 50', Spread 40' A cut-leaf form of Silver Maple, that has an upright pyramidal form with horizontal to slightly weeping branches.

**Sugar Maple** (In general Sugar Maples do not do well in North Dakota, leaf scorch occurs often, they like a slightly acid soil, in alkaline soils iron chlorosis is a problem. That being said Unity maybe a Sugar Maple to try.)

*Unity Sugar Maple* Acer saccharum 'Jefcan' Height 35-40', Spread 25-30'

Developed at Jeffries Nursery in Manitoba and selected for the cold prairie climate, resistant to frost cracking, residential lawn tree in a sheltered area. Fall foliage is yellow to an orange red color.

**Tatarian Maple** Acer tataricum Height 20-25', Spread 18-20' Has dark green foliage turning to yellows, orange red in the fall. Samaras (seed) are often red and showy. Large shrub or small tree, that is similar in many respects to Amur Maple. Tatarian Maple will tolerate alkalinity and dry conditions better than Amur Maple will.

*Hot Wings Tatarian Maple* Acer tataricum 'Hot Wings' Height 20', Spread 12-15' This is an ideal tree for yards with limited space. The small dark green leaves turn shades of purple and red in autumn. The samaras (winged seed heads) glow bright red from late summer through fall, hence the name 'Hot Wings'. Tatarian maples are low water plants ideal for the xeriscaped yard. They have a more upright, vase-shape than the Ginnala (Amur) Maple.

*Pattern Perfect Tatarian Maple* Acer tataricum 'Patdell' Height: 20' Spread 18' Crown Shape: Oval to rounded Fall Foliage: Orange-red Hardiness: Zone 3 This cultivar of Tatarian Maple, features thick green leaves and brilliant red samaras in early July. Tolerant of drought and alkaline soils.

## Maackia

*Amur Maackia* Maackia amurensis Height 20-30', Spread 20-25'  
Small, upright vase shaped tree with a rounded crown. White blooms in July-August the foliage emerges with a silvery pubescence becoming green with maturity. Bark shiny brown, peels as it matures. Adaptable to a wide range of soils and prefers moist well-drained sites. Legume, fixes it's own nitrogen, no serious disease or insect problems.

*Summertime Maackia* Maackia amurensis 'Summertime' **Height** 15-20'; **Spread:** 12-15'; **Zone:** 3-8  
A University of MN introduction selection of Amur Maackia is an excellent small tree with multi-season interest. It grows as a low branching, single-trunked tree, with mottled olive green to golden brown bark which lends interest to the winter landscape. In spring, compound leaves emerge with a distinctive silvery appearance maturing to a rich deep green. Summertime blooms in mid to late summer with numerous bottlebrush-like racemes of small cream flowers. Small, papery seedpods then develop and turn brown in autumn.

## Mountain Ash

**European Mountain Ash** Sorbus aucuparia Height 20-30', Spread 20-25' Foliage is clear deep green becoming orange to red in the fall. In the spring white flowers are produced developing into showy orange red fruit, August-September. The fruit may persist on the tree into the winter. The tree has an upright, rounded appearance at maturity. Bark is grayish brown, usually smooth, but may become somewhat roughened with age.

European Mountain Ash Cultivars: (The following is a short list of the many cultivars available.)

*Beissner Cutleaf Mountain Ash* Sorbus aucuparia 'Beissneri' Height 30-35', Spread 20-25' The tree has an upright oval form with cutleaf, lacy green leaves turning yellow in the fall. Produces white flowers in the spring and orange-red berries in August-September. Bark is orange-red becoming copper-orange with age. Introduced in the year 2000.

*Black Hawk Mountain Ash* Sorbus aucuparia 'Black Hawk' Height 25-30', Spread 15-20' The foliage is thick dark green and develops a rust color in the fall. The flowers are white in the spring and produces orange fruit in August-September.

*Cardinal Royal Mountain Ash* Sorbus aucuparia 'Michred' Height 20-30', Spread 20' Same as species except with large, bright red fruit. The foliage is dark green above, silvery beneath, developing rust color in the fall. Developed by Michigan State University

*Pyramidal Mountain Ash* Sorbus aucuparia 'Fastigiata' Height 20-30', Spread 6-10' A narrow, columnar type, slow growing. Orange-red berries, deep green foliage with no significant fall color.

*Russian Mountain Ash* Sorbus aucuparia 'Rossica' Height 30', Spread 20' A broad pyramidal or upright oval form with white flowers in the spring and bright red fruit in the fall. The foliage is medium to dark green, turning rust color in the fall.

**Showy Mountain Ash** Sorbus decora Height 20-25', Spread 20' The hardiest of the Mountain Ash species. Smaller ornamental tree grown for its white flowers, handsome dark green foliage, showy red fruit, and the foliage turns red in the fall. It is slower growing than European Mountain Ash but more disease resistant.

## Oak

*Bur Oak* Quercus macrocarpa Height 60-80', Spread 60-80' Tolerates a wide range of soil types and is drought resistant. The tree has an impressive crown, massive trunk and stout branches. The stems have corky ridges on them. This oak will adapt to various soils where other oaks sometimes fail.

*Mongolian Oak* Quercus mongolica Height 30-50', Spread 30-40' Similar to Bur Oak, develops a rosy-pink fall color and retains leaves into the winter.

## Pear

*Ussurian Pear* Pyrus ussuriensis Height 15-30', Spread 15-20' The hardiest of all pears, native NE Asia. When in bloom the tree is a mass of large, clustered white flowers, foliage is semi-glossy and dense. Growth habit is dense and upright, becoming rounded with age. Fruit is a one-inch pome, greenish yellow. Foliage develops an orange to yellow fall color.

### Ussurian Pear Cultivars:

*Mountain Frost Pear* Pyrus ussuriensis 'Balifrost' Height 20-30', Spread 15-20' Pyramidal oval form, Glossy green leathery leaves develops into shades of crimson and purple in the fall. Fruit is sparsely produced.

*Prairie Gem Pear* Pyrus ussuriensis 'Mordak' Height 18-25', Spread 15-20', Bright green thick, leathery leaves develop a golden-yellow fall color. Smaller and more rounded than Ussurian Pear. White flowers blanket the tree in the spring. Introduced by NDSU.

## Hybrid Pear

*Early Gold Pear* Pyrus x 'Early Gold' Improved plant vigor, chlorosis resistant and cold hardiness. Fruit is good for fresh eating and preserves.

## Pine

*Limber Pine* Pinus flexilis Height 30-45', Spread 15-30' The tree has a dense, broad pyramidal shape when young, becoming flat-topped with age. The bark is light to dark greenish gray, old trunks are dark gray to dark brown and fissured. Not all Limber Pines are hardy for North Dakota, talk to you nursery to insure the stock will do well in our area.

*Ponderosa Pine* *Pinus ponderosa* Height 50-70', Spread 25-30' The tree has a narrow pyramidal shape when young, develops irregularly cylindrical, narrow, often with a flat topped crown. The bark is brown-black and furrowed on young vigorous trees; yellowish-brown to cinnamon-red on slow growing old trees. Ponderosa Pine will grow on most soil types and is drought tolerant once established. The tree does not tolerate flooding or extended periods of saturated soil conditions.

*Scotch (Scots) Pine* *Pinus sylvestris* Height 35-45', Spread 25-30' Scotch Pine is pyramidal when young, becoming more rounded and open with age. The bark is orange-brown and peels off in papery flakes, towards the base, grayish or reddish-brown, fissured into irregular scaly plates with age. Many cultivars are available, some are tree form others are creeping prostrate plants.

*Swiss Stone Pine* *Pinus cembra* Height 30-40', Spread 15-25' Swiss Stone Pine is an extremely attractive conifer that should be used much more in landscape settings. As a young tree, it is very conical in form. It is very slow in growth and remains relatively small. The soft 2-3 inch long needles are found in bundles of five and are often retained for four or five years. This species is very resistant to winter browning of the needles. Makes an excellent evergreen specimen or group planting

*Prairie Statesman Swiss Stone Pine* *Pinus cembra* 'Herman' Height: 40-50' Spread: 10-12' a very elegant, stately tree that is narrowly erect and very dense in form. Winter hardy to Zone 2B-3. New to the nursery trade, ask your nurseryman if it is available.

### **Mugo Pine or Swiss Mountain Pine**

*Mugho Big Tuna* *Pinus mugo* 'Big Tuna' Height 6' Spread 6' dark green foliage; compact, upright form of mugho; needles 1-3 inches long in bundles of 2; needles persist 5+ years; hardy to Zone 2. Available but not sold by many retail nurseries and garden centers.

*Tannenbaum Swiss Mountain Pine* *Pinus mugho* 'Tannenbaum' Height: 10-15', Spread: 6' A dwarf, compact, pyramidal form, excellent summer and winter green color; zone 2-3 winter hardiness.

### **Poplar Species**

*Sabre Aspen* *Populus grandidentata* 'Durman' Height: 35-45'; Spread 25-30' Sabre Aspen is a male selection of the native Largetooth Aspen. It has attractive smooth bark, a balanced branch structure and sharp toothed leaves that flutter in the wind. It has an upright juvenile crown form that later broadens with maturity. Consistent, rich yellow leaf color in autumn; Sabre is adaptable to a wide variety of soils but can be susceptible to chlorosis on some soils. Excellent choice for group planting and naturalization projects. A Prairie Shade Nursery selection. Hardiness Zone: 2

*Columnar European Aspen* *Populus tremula* 'Erecta' Height 40', Spread 10' An excellent, narrowly fastigiated tree found in the forest of Sweden. Good alternative to Lombardy.

*Cottonwood* *Populus deltoides* Height 70-90', Spread 40-50' Large tree which should only be planted in areas where it has room to grow. Pyramidal growth habit when young, developing a broad vase shape with age. The tree crown is open, often with massive spreading branches. Longer lived than hybrid poplars. Male selections are available, cottonless.

*Skyfest Poplar* *Populus deltoides* 'Jefcot' Height 80', Spread 30' A male cottonwood selected for its high disease resistance, vigor and upright form, excellent for naturalizing and parks. Introduced by Jefferies Nursery, Canada. Zone 2

*Quaking Aspen*      Populus tremuloides Height 30-40', Spread 30' Pyramidal growth habit when young, rounded at maturity. Bark greenish to white. Leaves small and move in the slightest breeze. Adaptable to most soils; 'Pikes Bay' is a selection from northern Minnesota, reported to be more canker resistant.

*White Poplar*      Populus alba Height 40-70', Spread 40-70' Usually a wide-spreading tree with an irregular, broad, round-topped crown. Bark is greenish-gray to whitish, marked with darker blotches, the base of old trunks become fissured, with blackish ridges. Needs ample room to grow; spreads by suckers. Zone 3

## Hybrid Poplar

There are many cultivars of hybrid poplars, look for those that have good disease resistance. There are new hybrids being developed with better disease resistance to insects and disease.

*Lanceleaf Cottonwood*      Populus x acuminata Zone: 3 Height: 40-60' Spread: 35-50' A hardy, upright, seedless, pyramidal tree. Leaves are 4" long with a light green underside.

*Northwest Poplar*      Populus x jackii 'Northwest' Height 70-90', Spread 40-50' Leaves are large and green, turning yellow in the fall. Fast growing, long-lived poplar for the Northern Plains states. Leaves are rust resistant, but the tree may have problems with cankers. Zone 2

*Prairie Sky Poplar*      Populus x canadensis 'Prairie Sky' Height: 50-60' Spread: 8-10' A poplar from the Morden Experiment Station in Canada. It is extremely cold hardy, seedless cultivar with excellent form and disease resistance. Zone 3

*Robusta Poplar*      Populus x canadensis 'Robusta' Height 40-60', Spread 30-40' Cottonless cottonwood, Robusta Poplar is faster growing, seedless hybrid introduction by the University of Minnesota. Well suited to moderate and arid conditions. Zone 3

*Tower Poplar*      Populus x canescens 'Tower' Height 40-50', Spread 10' Foliage is glossy green above, furry white beneath. An introduction from Morden Research Station, Manitoba; poplar for cold climate zones. Rapid growing columnar tree, excellent for screening, sound barrier, or accent plant and is seedless. Zone 2B

## Prunus species

*Amur Chokecherry*      Prunus maackii Height 20-30', Spread 25-30' A hardy small tree producing white flowers and black fruit, usually eaten by the birds before fully ripe. Bark golden brown or dark red with a glistening metallic color, flaking off similar to birch. Foliage is light green turning yellow in the fall. Zone 2

*Goldrush Amur Cherry*      Prunus maakii 'Jefree' Height 20-30', Spread 25-30' Hardy to Zone 2; An open pollinated seedling of Amur Cherry from Jefferies Nursery, Portage La Prairie Manitoba. Goldrush possesses some traits of Sour Cherry (Prunus fruticosa) suggesting cross hybridization in its parentage. Upright growth habit; has shown improved resistance to frost cracking of the stem.

*Midnight Schubert Chokecherry*      Prunus virginiana 'Midnight' Height 25', Spread 20' Hardy to zone 2 A non-suckering selection from Lakeshore Tree Farm in Saskatoon. Purple summer foliage is slightly larger than Canada Red Select Chokecherry. Canadian introduction, maybe hard to find in nursery trade.

*Muckle Plum* Prunus x nigrella 'Muckle' Height 10-15', An interspecific hybrid between Canada Plum and Russian Almond which is sterile. This outstanding oval, spring flowering tree, has bright red buds that develop in to showy bright pink flowers. The leaves turn bright red in the fall. Zone 3

*Pin Cherry* Prunus pensylvanica Height 25-40', Spread 18-25' The foliage is lustrous deep green, changing to yellow and red in the fall. The tree is small, broadly rounded. Flowers are one half inch and produced freely in May. The tree is tolerant of all but poorly drained soil. Zone 2

*Schubert Chokecherry* Prunus virginiana 'Schubert' Height 20-25', Spread 20' New growth is green turning to maroon-red as leaves mature. The flowers are white and the fruit is red in color. The shape of the tree is rounded to oval. Like the common chokecherry; Shubert Chokecherry does produce suckers and is susceptible to Black Knot. Zone 2

**Russian Olive** Eleagnus angustifolia Height 20', Spread 20' The tree has a rounded irregular growth habit with silvery-gray foliage. In the spring the tree has very fragrant yellow flowers, followed by silvery-yellow berries. Very salt and drought tolerant, makes a good xeriscape plant. The seeds are spread by birds and grow often in places where they are not wanted; may have problems with canker diseases. Zone 2

## **Spruce.**

*Black Hills Spruce* Picea glauca var. densata Height 20-40', Spread 15-20' Native to South Dakota, it has a church steeple shape and short needles, the Black Hills Spruce is a cousin to the White Spruce. It is a little more naturally bushy and has beautiful bright green to bluish green needles. It is very adaptable to most soil conditions. It is considered more drought tolerant than other types of White Spruce. Zone 2

*Colorado Spruce* Picea pungens Height 30-60', Spread 20-30' A dense, narrow to broad pyramid shaped tree with stiff horizontal branches down to the ground. The color can range from a gray-green to bluish green to silver blue. The bluer type trees are selected and sold as Colorado Blue Spruce. Prefers heavier soils, full sun, average moisture, but can tolerate a wide range of soil. Colorado Spruce is drought tolerant, but does not do well in floods or excess moisture conditions. There are many cultivars available in the nursery industry, many have been selected for there blue color. Some cultivars would include Hoops Blue Spruce, Baker Blue Spruce and Fat Albert. Zone 2

*Meyer Spruce* Picea meyeri Height 30-50' A very hearty native of China that has blue-green needles which are blunter than the Colorado Blue Spruce and branches are more flexible than those of the Colorado Blue Spruce. Meyer Spruce is tolerant of many soils and very disease and pest resistant. Meyer Spruce is being tried in North Dakota as an alternative to Colorado Spruce. It is another species that maybe worth trying. Zone 3

## **Walnut**

*Black Walnut* Juglans nigra Height 60', Spread 20'. Irregular rounded habit with compound dark green leaves. Black Walnut has a taproot and can be difficult to transplant. The nuts are edible and should be picked prior to the husk turning black. The roots produce a toxin known a juglone. This toxin may prevent grass and other plants from growing under the tree. The bark is dark brownish black and is deeply, narrowly furrowed. Zone 4 maybe 3B

*Butternut* Juglans cinera Height 40', Spread 35'. Rounded form, Edible sweet fruit Dark green leaves. Does well in variety of soils and reported to be more drought tolerant than Black Walnut. The bark is smoother than Black Walnut and is gray and shallowly furrowed. Zone 3

*Manchurian Walnut* Juglans mandshurica Height 60' A very attractive tree with, cone shaped edible fruit. Plants produce a taproot and are difficult to transplant Zone 2B-3

## **Willow**

*Laurel Leaf Willow* Salix pentandra Height 30-35', Spread 30' A medium sized tree with a broad oval to rounded crown. Like most willows, it grows rapidly. The leaves are dark green and extremely glossy. Fall color is green to yellow-green. Zone 2

*Prairie Reflection® Laurel Willow* Salix pentandra 'Silver Lake' Height 35 to 40' Spread 25'  
A superior selection of Laurel Willow from NDSU, which is somewhat tolerant to alkaline soils. *Prairie Reflection™* grows rapidly, produces a dense, rounded tree with very dark green, highly glossy foliage. It requires pruning, as do all Laurel Willows, to produce a single-trunked tree in nursery production. The glossiness of the leaves reflect sunlight much like a mirror, hence its name. It will reach a semi-mature height of 35 to 40 feet in 18 to 25 years. Zone 3 hardiness.

*Prairie Cascade Willow* Salix x 'Prairie Cascade' Height 35-45', Spread 34-40' Hybrid of Salix pentandra x Salix 'Blanda', introduced by Morden Research Station, Manitoba. This hybrid has the hardiness and glossy green foliage of the Laurel Willow while inheriting the weeping habit and golden stem color of the Weeping Willow. Zone 3

## **Proper Tree Planting**

Adapted from ISA Publication

