

OLMSTED SOIL & WATER CONSERVATION DISTRICT

TREE & SHRUB DESCRIPTIONS - 2026

CONIFERS

TECHNY ARBORVITAE (Thuja occidentalis 'Techny')



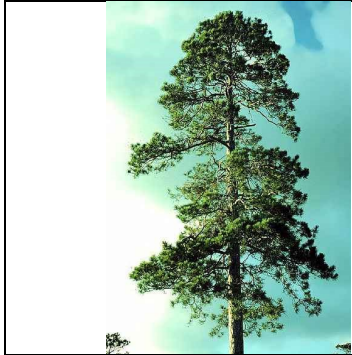
Characteristics: Dark green dense foliage. Winter hardy.
Growth Habits: Growth rate is rapid with heights 15 to 25 feet; crown spread 6 to 20 feet.
Tolerance: Full sun and partial sun.
Soils: Prefers well-drained, moist soil. Will tolerate poor drainage.
Uses: Makes a good dense hedge, screen and is good for wildlife though deer may browse.

WHITE PINE (Pinus strobes 'Eastern')



Characteristics: Needles in fascicles (groups) of fives; 3 to 5 inch needles, bluish-green color, soft and flexible. 4 to 8 inch slightly curved cones, Bark is thin, smooth light gray or greenish-gray becoming darker gray and rougher with age.
Growth Habits: Growth rate is rapid; maturity age is 200 to 300 plus years, height 80 to 100 feet, with a crown spread of 50 to 80 feet.
Tolerance: Intermediate shade tolerance (most tolerant pine).
Soils: Prefers moist well-drained sandy soils.
Uses: Shelterbelts, wildlife cover, pulpwood, saw logs. Not recommended for field windbreaks.

NORWAY PINE (*Pinus resinosa* 'Red Pine')



Characteristics: Needles in fascicles (groups) of two & three; 4 - 6 inch long flexible needles, dark yellow-green in color; 2-inch cones; bark is thin, light reddish-brown.

Growth Habits: Growth is moderate to rapid, maturity age is 200 to 300 plus years, height 40 to 60 plus feet, and crown spread is 25 to 30 feet.

Tolerance: Intolerant of shade.

Soils: Prefers light acid, sandy soils; will grow in poorer soils than White Pine. Prefers moist well-drained soils but will tolerate drier conditions.

Uses: Shelterbelts, Christmas trees, wildlife cover, pulpwood, sawlogs. Not recommended for field windbreaks.

BLACK HILLS SPRUCE (*Picea glauca* var. *densata*)



Characteristics: 1/3 to 3/4 inch needles; blue-green color, 1 1/2 to 2 inch dark cone, bark is ash brown.

Growth Habits: Rate is slow at first, after 5 to 8 years rate becomes rapid. Long-lived maturity, heights of 30 to 60 feet and crown spread of 15 to 25 feet.

Tolerance: Full sun to partial sun.

Soils: Prefers sandy moist, well-drained porous soils, but will grow on other soils if moisture is available.

Uses: Windbreaks, wildlife, nesting, roosting, winter cover, food source, and ornamental plantings.

NORWAY SPRUCE (*Picea abies*)



Characteristics: **Needles** are 1/2 to 1 inch, deep shiny green, pointed tips; cones are 4 to 7 inches (longest of spruces); bark is thin, grayish brown.

Growth Habits: Growth rate is rapid, (fastest of spruces) maturity is 200 plus years, heights of 80 to 100 feet, crown spread can reach 20 to 35 feet.

Tolerance: Tolerant of shade.

Soils: Prefers medium to fine textured soils. Prefers moist well-drained soil.

Uses: Farmstead shelterbelts, field windbreaks, Christmas trees, wildlife, pulp and sawlogs.

WHITE SPRUCE (*Picea glauca*)



Characteristics: Needles 1/3 to 3/4 inches, blue-green in color, cones 1 to 2 1/2 inches long, bark is thin, reddish brown to gray.

Growth Habits: Growth is moderately rapid. Maturity age could be 100 to 200 years, height 40 to 80 feet, and crown spread 20 to 30 feet.

Tolerance: Shade tolerant.

Soils: Grows on variety of soils, loamy, clay. Prefers moist sandy well-drained soils.

Uses: Shelterbelts (not recommended for field windbreaks), Christmas trees (leading species), wildlife nesting and cover, pulpwood, saw timber and specimen tree.

BALSAM FIR (*Abies balsamea*)



Characteristics: Excellent fragrance, Uniform shape, whorled horizontal branches form a tightly pyramidal to conical shape. 5/8 to 1 1/8 inch long, flat needles are lustrous dark green above with white stomatic bands below. Upright dark violet cones when young, ripening brown at maturity.

Growth Habits: 20-year maturity height of 30 to 50 ft, with crown spread of 20 to 30 feet.

Tolerance: Very shade tolerant. Prefers moist soil.

Soils: Tolerate soils with less than perfect drainage; rich organic acidic soil, well-drained loam with ample moisture.

Uses: Screening, group planting, the formal appearance makes it a suitable accent plant. Christmas trees. Wildlife, pulpwood, saw timber.

FRASER FIR (*Abies fraseri*)



Characteristics: Excellent fragrance, Uniform, horizontal to angled upward branches form a tightly pyramidal to conical shape. 1/2 to 1 inch long, flat needles are lustrous dark green above with white stomatic bands below. Upright dark violet cones when young, ripening pale brown at maturity.

Growth Habits: 7 to 10 years produce 6 to 7 ft. tall trees. Maturing height 30 to 50 feet, with crown spread 10 to 25 feet.

Tolerance: Full sun to partial shade. Moist soil.

Soils: Organic slightly acidic soil, moist well-drained sandy or loams soil.

Uses: Screening, group planting, the formal appearance makes it a suitable accent plant. Christmas trees. Wildlife, pulpwood, saw timber.

TAMARACK-AMERICAN LARCH (*Larix laricina*)



Characteristics: Minnesota native deciduous conifer. Short bright needle-like green leaf clusters changing to golden yellow in autumn then dropping. Flaky shaped bark appears brownish gray. ½” to ¾” reddish-brown egg-shaped cone.

Growth Habits: Rapid in favorable conditions. Maturing height 50 to 75 feet. Crown is conical and relatively open. Can live 150 to 200 years.

Tolerance: Full sun, moist soils.

Soils: Sandy coarse wet soil to clayey soil.

Uses: Wildlife, pulpwood, saw timber.

LARGE DECIDUOUS

BLACK CHERRY (*Prunus Serotina*)



Characteristics: Bark is smooth and brown becoming red-gray, shaggy, and peeling on older trees.

Leaf: Alternate, 2 to 5 inches long, oval to oblong, lance shaped. Margins are finely serrated, dark green and lustrous above, paler below. Flower: White racemes appear when leaves are half to newly formed. Flowers May to July. Fruit: Flesh is dark purple, almost black when ripe, with a bitter-sweet taste. Matures June to October.

Growth Habits: Growth is rapid, maturity height is 70 to 100 feet, and rounded crown-spread can be 35-50 feet.

Tolerance: Full sun through partial sun.

Soils: Prefers sandy loam to clayey soil.

Uses: A native tree valued for its lumber. Wildlife.

HACKBERRY (*Celtis occidentalis*)



Characteristics: Simple, singly toothed heart shaped base leaves. Twigs are zigzag, reddish brown; bark is gray, with corky warts or ridges on young trees.

Growth Habits: Growth is rapid, maturity age is 150 to 200 years, height is 40 to 60 feet, and crown-spread can be 30-40 feet.

Tolerance: Intermediate sun to shade tolerant.

Soils: Prefers well-drained moist soils but will tolerate both moderately wet and dry conditions.

Uses: Used as farmstead shelterbelts, not recommended for field windbreaks, good for wildlife, and sawlogs, shade and street planting.

AMERICAN LINDEN (*Tilia americana*)



Characteristics: Simple, broad heart-shaped leaves.

Growth Habits: Pyramidal when young, becoming rounded when mature. Height is 50 to 70 feet with a crown spread of 30-50 feet.

Tolerance: Full sun but will tolerate shade.

Soils: Grows well on deep, fertile, well-drained loam and clayey soils. Flood plain tree.

Uses: Medium to tall tree for farmstead windbreaks, and riparian plantings.

RUBRUM MAPLE 'Red Maple' (*Acer rubrum*)



Characteristics: 3-lobed leaves are bright green. Brilliant yellow, orange and red fall color. Red colored twigs, bark is smooth and gray on young trees.

Growth Habits: Growth is moderate to rapid; maturity age is 70 to 80 years, and height 40 to 60 feet. Crown spread is 30 to 50 feet.

Tolerance: Requires full sun for best effect. Intermediate to shade.

Soils: Will grow on coarse sands to fine clays. Prefers moist well-drained soils but tolerates wide range of moisture conditions. Does not tolerate poorly aerated soils or high pH.

Uses: Farmstead shelterbelts, not recommended for field windbreaks. Very good for wildlife, maple syrup, sawlogs.

SUGAR MAPLE (*Acer saccharum*)



Characteristics: Leaves are simple, usually five lobed, bright green turning yellow to orange or scarlet in the fall. Twigs are brownish to dark brown and sharply pointed, bark is gray.

Growth Habits: Rate is slow to moderate, maturity age is 75 to 150 plus years, height is 40 to 70 feet, crown spread can reach 30 to 50 feet.

Tolerance: Very tolerant of shade. Grow well in intermediate sunny conditions.

Soils: Prefers loam and clay loams, short lived on sandy soils, prefers well-drained moist soils will not tolerate poor drainage.

Uses: Not recommended for shelter belts or windbreaks, excellent for wildlife, sawlogs, veneer, and maple syrup. Commonly planted for ornamental and street plantings.

BUR OAK (*Quercus macrocarpa*)



Characteristics: Leaves are simple, large, rounded lobes. Fall colors of yellow green to brown. Will bear acorns.

Growth Habits: Slow, maturity, age 200 to 300 years. Height is 50 to 80 feet; crown spread 40 to 80 feet.

Tolerance: Full sun, shade tolerance is intermediate.

Soils: Prefers well-drained loamy soils but will tolerate wide range of soils and conditions.

Uses: Not recommended for shelterbelts or windbreaks. Good for wildlife and saw logs.

RED OAK (*Quercus rubra*)



Characteristics: Leaves are large simple with sharply pointed lobes. Leaves are dark green, quite glossy and develop excellent fall colors from orange to various shades of red. Will bear acorns.

Growth Habits: Growth is rapid; maturity age 200 to 300 years. Crown 40 to 80 feet, height 50 to 70 feet.

Tolerance: Intermediate to shade.

Soils: Prefers well-drained moist sandy soils, loamy, fine to medium textured clayey soils.

Uses: Great for wildlife and sawlogs, also a prime specimen tree.

SWAMP WHITE OAK (*Quercus bicolor*)



Characteristics: Rounded, lobed leaves, greenish color above and silvery green beneath. Fall color is yellowish, tan to orange, brown. Acorns mature in early fall.

Growth Habits: Moderately fast growing; maturity approximately 200 years; height 40 to 60 feet; crown spread 30 to 60 feet.

Tolerance: Intermediate tolerance to shade. Will tolerate poorly drained soils.

Soils: Prefers moist, moderately drained soil but also has surprisingly good drought tolerance and grows well in the uplands.

Uses: Excellent for wildlife; saw logs. Can be used in shelterbelts and windbreaks with proper spacing.

PIN OAK (*Quercus palustris* 'Northern')



Characteristics: Stately and symmetrical shape. Simple lobed sharp tip leaves with glossy, dark green color, turning brilliant red, orange and gold by autumn. Grayish brown bark with deep vertical furrows. Acorns set in shallow cap.

Growth Habits: Fast growth; maturity approximately 120 to 200 years. height 80 to 90 feet; crown spread 30 to 50 feet.

Tolerance: Pollution tolerant, drought.

Soils: Various soil types. Light sandy acidic. Well-drained. Prefers full sun.

Uses: Landscape, shade tree. Excellent for wildlife, general construction saw log.

WHITE OAK (*Quercus alba*)



Characteristics: Medium green leaves are 5-6" long and have distinct lobes with rounded sinuses and tips turning red or brown in the fall. Bark is light gray color. Will bear acorns.

Growth Habits: Moderate growth rate; maturity 350 to 400 years; height 50 to 70 feet; crown spread 40 to 80 feet.

Tolerance: Intermediate tolerance to shade.

Soils: Prefers moist well-drained loamy soil but will tolerate moderately dry soil.

Uses: Not recommended for shelterbelts and/or windbreaks unless wildlife is prime consideration. Excellent for wildlife; sawlogs.

NORWAY POPLAR (*Populus deltoides x nigra*)



Characteristics: Simple yellow green, 2 to 5 inch long leaves, twigs are stout and angular, yellowish-brown, bark is greenish yellow.

Growth Habits: Rate is very rapid; maturity age can reach 40 plus years. Height can be 40 to 60 plus feet; crown spread can reach 20 to 35 feet.

Tolerance: Intolerant of shade. Prefers full sun.

Soils: Prefers clay loams to sandy loams.

Uses: Of the Poplar species the Norway is recommended for shelterbelts or field windbreaks but has a shorter lifespan. Excellent for visual screens, quick growing tree cover and wildlife.

PAPER BIRCH (*Betula Papyrifera* 'White')



Characteristics: Smooth bright white papery bark, with black markings. Dark green triangular leaves, turning bright yellow in autumn. Pyramidal shape developing into oval crown when mature.

Growth Habits: Rapid; maturity age 40 to 50 years. Height can be 35 to 50 feet. Crown spread can reach 20 to 40 feet.

Tolerance: Deer. Sun. Droughty soils

Soils: Acidic, clay, sandy loam well-drained. Wide range of soil types

Uses: Single or multi-planting landscape when maintained. Excellent for wildlife, pulpwood.

SMALL DECIDUOUS

RED SPLENDOR CRAB (*Malus baccata*)



Characteristics: The leaves are simple, green in summer turning purple in fall. Pink or white flowers in the spring and small red fruit (apple).

Growth Habits: Growth is rapid, small to medium size tree, reaches 20-25 feet, crown spread of 20 feet.

Tolerance: Full sun. Winter hardy and drought resistant.

Soils: Prefers sandy through clay loamy soils. Does best in moist well-drained soils.

Uses: Windbreaks, wildlife.

AMERICAN PLUM (*Prunus americana*)



Characteristics: Leaves are simple, sharply toothed, dark green on top, paler underneath, turning pale golden yellow in fall; twigs are red-brown armed with short thorn-like spur branches. Bark is quite scaly on older trees. White fragrant flowers in April and May.

Growth Habits: Growth rate is fast, 35 to 65 years maturity, height can reach 20 to 25 feet, and crown spread can be 15 to 25 feet.

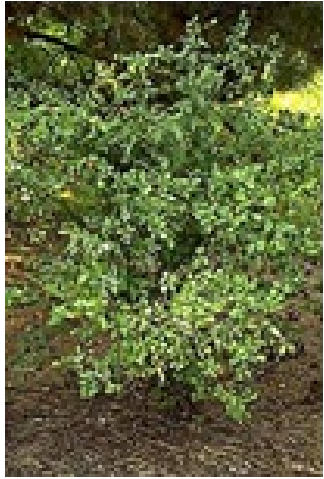
Tolerance: Requires well-drained soil and a sunny location.

Soils: Prefers deep prairie loams, sandy loams will tolerate some drought.

Uses: Not recommended for shelterbelts because of root suckering habit, great for wildlife.

SHRUBS

CHOKEBERRY (*Aronia melanocarpa*)



Characteristics: Open, upright, spreading, rounded but leggy, deciduous shrub. Features clusters of 5-petaled, white flowers in spring which are followed in early autumn by blackish purple, blueberry-sized fruits. Lustrous, dark green foliage turns an attractive purplish red in the fall.

Growth Habits: Rate is slow; height can reach 3 to 6 feet. Crown spread equals height.

Tolerance: Full sun through partial sun.

Soils: Sand through clay

Uses: Jams, jellies, wildlife, prolific berry producer.

AMERICAN CRANBERRY (*Viburnum trilobum*)



Characteristics: Leaves are lobed; 2 to 4 inches long, dark green turning bright red in fall, white flowers in late May. Tart, juicy red fruit.

Growth Habits: Rate is moderate; height can reach 8 to 12 feet. Crown spread equals height.

Tolerance: Shade, sun, partial sun tolerance.

Soils: Not particular but prefers cool conditions on moist, well-drained soils.

Uses: Some use in farmstead shelterbelts, might be subject to snow damage. Good for wildlife or informal hedge or screen. Fruit is edible but sharply acid; used for jelly and juice.

GRAY DOGWOOD (*Cornus Racemosa*)



Characteristics: Leaves are opposite; smooth edges; 3 to 5 veins that tend to follow leaf edges toward tip, 2 -3” clusters of creamy white flowers in late spring and white berries on red pedicels in late summer. Fall coloration is a deep maroon.

Growth Habits: Height can reach 6-10 feet, width of 6-8 feet.

Tolerance: Well adapted to either full sun or light shade. Often found in open site shrub masses 5-6’ in height, while in shade it is often taller, but less dense.

Soils: Tolerant to wet, dry, or low fertility soils.

Uses: Wildlife, fruits are edible by ring-necked pheasant, ruffed grouse, and sharp-tail grouse.

RED OISER DOGWOOD (*Cornus stolonifera*)



Characteristics: Leaves are simple with distinct veins, turn purplish to red in fall. It has 2-3-inch clusters of white flowers in late spring. Fruit are small white berries; twigs are a showy red which become brighter in late winter.

Growth Habits: Rate is moderate; height can reach up to 10 feet, width similar to height.

Tolerance: Full sun to light shade.

Soils: Prefers wetter sites but is tolerant of diverse soil types.

Uses: Shelterbelts are not recommended because of root suckering. Good for wildlife.

JUNEBERRY (‘Saskatoon, Serviceberry’ *Amelanchier alnifolia*)



Characteristics: Leaves are simple, oval, $\frac{3}{4}$ to 2 $\frac{1}{2}$ ” long. White flowers in early spring prior to leafing out. Edible, blue-black fruit ripens in mid-summer. Foliage develops an excellent yellow orange to red-purple fall coloration.

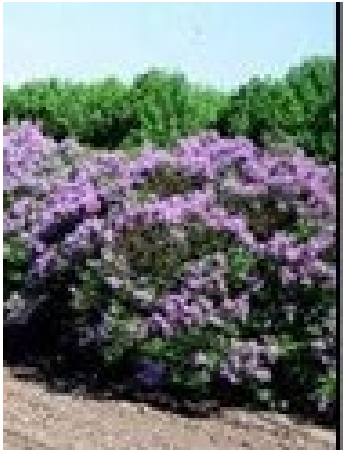
Growth Habits: Rate of growth is moderate. Height usually is 6 to 8 feet, may reach 12-15 feet. Crown spread is 6 to 8 feet.

Tolerance: Does best in full sun but will grow in partial shade; fewer fruits and flowers will be produced in the shade.

Soils: Requires well-drained soil.

Uses: Not recommended for shelterbelts. Good for wildlife. Fruits are edible but bland and normally taken by birds.

LILAC/COMMON PURPLE (*syringa vulgaris*)



Characteristics: Attractive, sturdy and winter-hardy; leaves are smooth dark blue-green in color; fragrant purple flowers in the spring.

Growth Habits: Medium to tall, may reach heights 10 - 12 feet with crown spread of 10-12 feet.

Tolerance: Requires full sun for best performance, will tolerate partial shade.

Soils: Best on moist, well-drained soils.

Uses: Windbreaks, good for wildlife, attractive visual barrier.

NINEBARK (*Physocarpus Opulifolius*)



Characteristics: Upright, spreading shrub with stiffly recurved branches, rounded and dense medium green in foliage. White umbrella-like flower clusters in the spring.

Fruit: russet pod, dense clusters in the late fall and a golden yellow fall leaf color.

Growth Habits: Rate is rapid; height 5 - 10 foot. Crown spread 6 - 8 feet.

Tolerance: Full sun. Moderately tolerant of shade.

Soils: Will grow in a variety of soils.

Uses: Windbreaks, living snow fences and shelterbelts.

NOTE: THIS IS GENERAL INFORMATION ABOUT EACH TREE AND ITS GROWTH CHARACTERISTICS. LIFE EXPECTANCY WILL DEPEND ON THE CARE AND WEATHER CONDITIONS.

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