## COMMON TREESAT WINDY ACRES

## American Sycamore

American Sycamore is a deciduous tree which can reach 30 to 40 m high with a trunk diameter of 1.5 to 2 m under good conditions. The trunk is often divided near the ground into several secondary trunks and is easily identified by its mottled bark which flakes off in large irregular masses as the tree grows. The leaves are about $10-23 \mathrm{~cm}$ wide and long with 3 to 9 toothed lobes.


## Black Walnut

Black Walnut can grow to a height of 30 to 40 m . In a forested area, it develops a tall and straight trunk and in an open areas it has a shorter trunk and broad crown. The bark is typically grey-black and deeply furrowed into thin ridges that gives the bark a diamond shaped pattern. The leaves are pinnately compound and alternately arranged on the stem. The leaves, $30-60 \mathrm{~cm}$ long, are typically even-pinnate but there is heavy variation among
 leaves. The stems have 15-23 leaflets and are overall dark green.
https://en.wikipedia.org/wiki/Juglans_nigra
https://plants.usda.gov/core/profile?symbol=JUNI
http://www.tree-guide.com/black-walnut


## White Ash (killed by Ash borer beetle)

White Ash can grow to 30 m tall having a straight truck with a diameter of 0.6 m . The crown is dense and is conical or round. The bark is thick, dark gray, with a uniform, diamond-shaped ridge. The leaves are pinnately compound and alternately arranged on the stem. They are 20-30 cm long, 3-6 cm wide, paired except the end. The stems have 59 leaflets and are overall dark green in color with a whitish lower surface. This White Ash, and many like it in North America, were killed by an invasive insect species known as the emerald ash borer. Is has been calculated that this insect threatens some 7.5 billion ash trees in the United States


## Honey Locust

Honey Locust can reach heights of 24 m with a trunk diameter of 0.8 m . The bark is grey-brown or black; it has fissures in long narrow scaly ridges with stout brown spines sometime as large as 20 cm which are grouped in 3 or more. The leaves are pinnately or bipinnately compound and are 10 to 20 cm long often with 3-6 pairs of side forks. Many oblong leaflets are $1-3 \mathrm{~cm}$ long paired with a finely wavy edge. Dark green on top and yellow-green on the bottoms side. The leaves turn yellow in autumn.


## Cedar

Cedar, known as red cedar, eastern redcedar, Virginian juniper, eastern juniper, red juniper, pencil cedar, and aromatic cedar, is a species of juniper native to eastern North America from southeastern Canada to the Gulf of Mexico and east of the Great Plains. Cedar is a dense slow-growing coniferous evergreen tree that may never become more than a bush on poor soil but ordinarily grows to 20 m with a short trunk, typically no more than 100 cm in diameter. The bark is reddish-brown, fibrous, and peels off in narrow strips. The leaves are of two types; sharp, spreading needle-like juvenile leaves 5-10 mm long, and tightly adpressed scale-like adult leaves 24 mm long; they are arranged in opposite decussate pairs or occasionally whorls of three. The seed cones are 3-7 mm long, berry-like, dark purple-blue with a white wax cover giving an overall sky-blue color.


## Pin Oak

Pin oak also known as swamp Spanish oak, is a medium-sized deciduous tree growing to 18-22 m tall, with a trunk up to 1 m diameter. Young trees have a straight, columnar trunk with smooth bark and a pyramidal canopy. By the time the tree is 40 years old, it develops more rough bark with a loose, spreading canopy. This canopy is considered one of the most distinctive features of the pin oak: the upper branches point upwards, the middle branches are at right angles to the trunk, and the lower branches droop downwards. The leaves are 5-16 cm long and 5-12 cm broad, lobed, with five or seven lobes. Each lobe has five to seven bristle-tipped teeth. Overall autumn leaf coloration is generally bronze, though individual leaves may be red for a time. The acorns, borne in a shallow, thin cap, are hemispherical, 10-16 mm long and 9-15 mm broad, green maturing pale brown about 18 months after pollination.

## Sugar Maple

Sugar maple or rock maple is a deciduous tree best known for being the primary source of maple syrup and for its brightly colored fall foliage. The tree normally reaching heights of $25-35 \mathrm{~m}$. A10-year-old tree is typically about 5 m tall. As with most trees, forest-grown sugar maples form a
 much taller trunk and narrower canopy than open-growth ones. The leaves are up to 20 cm long and wide palmate, with five lobes and borne in opposite pairs. The base lobes are relatively small, while the upper lobes are larger and deeply notched. The fall color is often spectacular, ranging from bright yellow on some trees through orange to fluorescent red-orange on others.



## Tulip

Tulip tree can grow to $18-60 \mathrm{~m}$ high and $60-120 \mathrm{~cm}$ in diameter. Trees which grow in areas competing for sunlight tend to be on the taller side. Its trunk is usually columnar, with a long, branch-free bole forming a compact, rather than open, conical crown of slender branches. It has deep roots that spread widely. Tulip trees are easily recognized by their leaves, which are distinctive, having four lobes. Leaf size varies from 8-22 cm long and 6-25 cm wide. Leaves on young trees tend to be more deeply lobed and larger in size than those on mature trees. In autumn, the leaves turn yellow, or brown and yellow. Flowers are $3-10 \mathrm{~cm}$ in diameter and have nine tepals - three green outer sepals and six inner petals which are yellow-green with an orange flare at the base. They start forming after around 15 years and are superficially similar to a tulip in shape, hence the tree's name.

## Apple

The apple is a deciduous tree, generally standing 2 to 4.5 m tall in cultivation and up to 9 m in the wild. The leaves are alternately arranged dark green-colored simple ovals with serrated margins and slightly downy undersides. Blossoms are produced in spring simultaneously with the budding of the leaves and are produced on spurs and some long shoots. The 3 to 4 cm flowers are white with a pink tinge that gradually fades, five petaled, with an inflorescence consisting of a cyme with 4-6 flowers. The central flower of the inflorescence is called the "king bloom"; it opens first and can develop a larger fruit. The fruit matures in late summer or autumn, and cultivars exist in a wide range of sizes. Commercial growers aim to produce an apple that is 7 to 8.5 cm in diameter, due to market preference. The skin of ripe apples is generally red, yellow, green, pink, or russetted, though many bi- or tri-colored cultivars may be found.



## Pear

The pear tree reaches 10-17 m tall, often with a tall, narrow crown. The leaves are alternately arranged, simple, 2-12 cm long, glossy green on some species, densely silvery-hairy in some others; leaf shape varies from broad oval to narrow lanceolate. The flowers are white, rarely tinted yellow or pink, 2-4 cm diameter, and have five petals. The pear fruit is a pome, in most wild species $1-4 \mathrm{~cm}$ diameter, but in some cultivated forms up to 18 cm long and 8 cm broad; the shape varies in most species from oblate or globose, to the classic pyriform 'pear-shape' of the European pear with an elongated basal portion and a bulbous end.


## Northern Red Oaks

The Northern Red Oak is a deciduous tree. In the forest is grows straight and tall, to 28 m , with a trunk of up to $50-100 \mathrm{~cm}$ diameter. Open-grown trees do not get as tall, but can develop a stouter trunk, up to 2 m in diameter. It has stout branches growing at right angles to the stem, forming a narrow round-topped head. Under optimal conditions and full sun, northern red oak is fast growing, and a 10-year-old tree can be $5-6 \mathrm{~m}$ tall. This specimen is likely over 100 years old but can live for 400 years. Northern red oak is easy to recognize by its bark, which features ridges that appear to have shiny stripes down the center. The bark is dark reddish gray brown, with broad, thin, rounded ridges, and is scaly. The leaves have alternate, seven to nine-lobed, oblong-ovate to oblong, $120-240 \mathrm{~cm}$ long, $100-150 \mathrm{~cm}$ inches broad with seven to eleven lobes tapering gradually from broad bases. When full grown, they are dark green and smooth, sometimes shining above, yellow green, smooth or hairy on the axils of the veins below. In midsummer and early autumn, they turn a rich red, sometimes brown. The acorns mature in about 18 months after pollination; solitary or in pairs; the nut has a broad flat base, full, with acute apex, $25-40 \mathrm{~cm}$ long, first green, maturing nut-brown; cup, saucer-shaped and shallow, 2 cm wide, usually covering only the base.

[^0]
## Japanese Maple

The Japanese Maple is a deciduous shrub or small tree reaching heights of 6 to 10 m , and width of 4.5 m . It may have multiple trunks joining close to the ground. Its canopy often takes on a dome-like form, especially when mature. The leaves are $4-12 \mathrm{~cm}$ long and wide, palmately lobed with five, seven, or nine acutely pointed lobes. The flowers are produced in small cymes, the individual flowers with five red or purple sepals and five whitish petals. The fruit is a pair of winged samaras, each samara $2-3 \mathrm{~cm}$ long with a 6-8 mm seed.


## Norway Spruce

Norway spruce is a large, fast-growing evergreen coniferous tree growing to $35-55 \mathrm{~m}$ tall and with a trunk diameter of 1 to 1.5 m . It can grow fast when young, up to 1 m per year for the first 25 years under good conditions but becomes slower once over 20 m tall. The shoots are orange-brown and glabrous (hairless). The leaves are needle-like with blunt tips, $12-24 \mathrm{~mm}$ long, quadrangular in cross-section (not flattened), and dark green on all four sides with inconspicuous stomatal lines. The seed cones are 9-17 cm long and have bluntly to sharply triangular-pointed scale tips. They are green or reddish, maturing brown 5-7 months after pollination. The seeds are black, 4-5 mm long, with a pale brown $15-\mathrm{mm}$ wing.

## https://en.wikipedia.org/wiki/Picea_abies

https://www.arborday.org/trees/whattree/WhatTree.cfm?ItemI $\mathrm{D}=\mathrm{E} 15 \mathrm{~b}$

## Northern Catalpa

The Northern Catalpa is a medium-sized, deciduous tree growing to 15-30 meters tall and 12 m wide. It has a trunk up to 1 m diameter, with brown to gray bark maturing into hard plates or ridges. The leaves are opposite (or whorled), large, heart shaped, $20-30 \mathrm{~cm}$ long and $15-20 \mathrm{~cm}$ broad, pointed at the tip and softly hairy beneath. The leaves generally do not color in autumn before falling; instead, they either fall abruptly after the first hard freeze, or turn a slightly yellow-brown before dropping off. The catalpa tree is the last tree to grow leaves in the spring. The winter twigs of northern catalpa are like those of few other trees, having sunken leaf scars that resemble suction cups. Their whorled arrangement (three scars per node) around the twigs is another diagnostic. The flowers are 3-6 cm across, trumpet shaped, white with yellow stripes and purple spots inside; they grow in panicles of 10-30. The fruit is a long, thin legume-like capsule, 20-40 cm long and 10-12 mm diameter; it often stays attached to tree during winter (and can be mistaken for brown icicles). The pod contains numerous flat, light brown seeds with two papery wings.



## Bitternut Hickory

This Hickory tree was most likely planted to aid as a windbreak between fields. The wood of the Hickory tree is also popular for smoking meats. Bitternut Hickory is a large deciduous tree, growing up to 35 m tall, with a trunk up to 1 m diameter. The leaves are $15-30 \mathrm{~cm}$ long, pinnate, with 7-11 leaflets, each leaflet lanceolate, $7-13 \mathrm{~cm}$ long, with the apical leaflets the largest but only slightly so. The flowers are small wind-pollinated catkins, produced in spring. The fruit is a very bitter nut, $2-3 \mathrm{~cm}$ long with a green four-valved cover which splits off at maturity in the fall, and a hard, bony shell. Another identifying characteristic is its bright sulfur-yellow winter bud.

## Weeping Higan Cherry

The Weeping Higan Cherry grows to 6 to 9 m tall and spreads 5 to 8 m in a weeping habit. It grows with an irregular outline or silhouette dense crown with a weeping crown shape. It has a fast growth rate. Leaves stay glossy green throughout the summer and into the fall when they turn a vivid yellow before leaving the tree bare in winter. The Weeping Higan Cherry blooms in the spring, having light pink (almost white) flowers that cover the branches before the leaves emerge. The 25 mm diameter flowers are light pink (almost white). The fruit is oval in shape, less than 13 mm and black in color.
https://en.wikipedia.org/wiki/Prunus_subhirtella_\'Pendula\'


## Weeping Willows

Weeping willow or Babylon willow is a medium- to largesized deciduous tree, growing up to 20-25 m tall. It grows rapidly, but has a short lifespan, between 40 and 75 years. The shoots are yellowish-brown, with small buds. The leaves are alternate and spirally arranged, narrow, light green, 4-16 cm long and $0.5-2 \mathrm{~cm}$ broad, with finely serrate margins and long acuminate tips; they turn a goldyellow in autumn. The flowers are arranged in catkins produced early in the spring; it is dioecious, with the male and female catkins on separate trees.

[^1]

## American Elm

American elm, also known as the white elm or water elm, is a species native to eastern North America. The American elm is a deciduous hermaphroditic tree which, before the introduction of Dutch elm disease (DED), commonly grew to more than 30 m tall with a trunk whose diameter at breast height was more than 1.2 m and whose circumference was more than 3.8 m when supporting a high, spreading umbrella-like canopy. The leaves are 7-20 cm long, with doubleserrate margins and an oblique base. The flowers are small, purple-brown. American Elm is wholly insensitive to daylight length (photoperiod) and will continue to grow well into autumn until injured by frost.

https://en.wikipedia.org/wiki/Ulmus_americana

## Mulberry

The Mulberry is a genus of flowering plants growing wild and under cultivation in many temperate world regions. Mulberries are fastgrowing when young and can grow to 24 m tall. The leaves are alternately arranged, simple, and often lobed and serrated on the margin. Lobes are more common on juvenile shoots than on mature trees. The mulberry fruit is a multiple, about 2-3 cm long. Immature fruits are white, green, or pale yellow. The fruit turns from pink to red while ripening, then dark purple or black, and has a sweet flavor when fully ripe.


## Shagbark Hickory

Carya ovata, the shagbark hickory, is a large, deciduous tree, growing well over $100 \mathrm{ft}(30$ m) tall, and can live more than 350 years. The tallest measured shagbark, located in Savage Gulf, Tennessee, is over $150 \mathrm{ft}(46 \mathrm{~m}$ ) tall. Mature shagbarks are easy to recognize because, as their name implies, they have shaggy bark. This characteristic is, however, only found on mature trees; young specimens have smooth bark. The leaves are
 30-60 cm (12-24 in) long, pinnate, with five (rarely three or seven) leaflets, the terminal three leaflets much larger than the basal pair. Shagbark hickory nuts were a significant food source for the Algonquins. Red squirrels, gray squirrels, raccoons, chipmunks, and mice are consumers of hickory nuts. Other consumers include black bears, gray and red foxes, rabbits, and bird species such as mallards, wood ducks, bobwhites, and wild turkey.

## Red Maple

Acer rubrum, the red maple, also known as swamp, water or soft maple, is one of the most common and widespread deciduous trees of eastern and central North America. The U.S. Forest service recognizes it as the most abundant native tree in eastern North America. Many of its features, especially its leaves, are quite variable in form. At maturity, it often attains a height of around 30 m ( 100 ft ). Its flowers, petioles, twigs and seeds are all red to varying degrees. Among these features, however, it is best known for its brilliant deep scarlet foliage in autumn.

Over most of its range, red maple is adaptable to a very wide range of site conditions, perhaps more so than any other tree in eastern North America. It can be found growing in swamps, on poor dry soils, and almost anywhere in between. In a mature or old growth northern hardwood forest, red maple only has a sparse presence, while shade tolerant trees such as sugar maples, beeches, and hemlocks thrive.


## Japanese Maple

The Japanese Maple is a deciduous shrub or small tree reaching heights of 6 to 10 m , and width of 4.5 m . It may have multiple trunks joining close to the ground. Its canopy often takes on a dome-like form, especially when mature. The leaves are 4-12 cm long and wide, palmately lobed with five, seven, or nine acutely pointed lobes. The flowers are produced in small cymes, the individual flowers with five red or purple sepals and five whitish petals. The fruit is a pair of winged samaras, each samara $2-3 \mathrm{~cm}$ long with a 6-8 mm seed.


## Norway Spruce

Norway spruce is a large, fast-growing evergreen coniferous tree growing to $35-55 \mathrm{~m}$ tall and with a trunk diameter of 1 to 1.5 m . It can grow fast when young, up to 1 m per year for the first 25 years under good conditions but becomes slower once over 20 m tall. The shoots are orange-brown and glabrous (hairless). The leaves are needle-like with blunt tips, 12-24 mm long, quadrangular in cross-section (not flattened), and dark green on all four sides with inconspicuous stomatal lines. The seed cones are $9-17 \mathrm{~cm}$ long and have bluntly to sharply triangular-pointed scale tips. They are green or reddish, maturing brown 5-7 months after pollination. The seeds are black, $4-5 \mathrm{~mm}$ long, with a pale brown $15-\mathrm{mm}$ wing.


## Northern Catalpa

The Northern Catalpa is a medium-sized, deciduous tree growing to $15-30$ meters tall and 12 m wide. It has a trunk up to 1 m diameter, with brown to gray bark maturing into hard plates or ridges. The leaves are opposite (or whorled), large, heart shaped, 2030 cm long and $15-20 \mathrm{~cm}$ broad, pointed at the tip and softly hairy beneath. The leaves generally do not color in autumn before falling; instead, they either fall abruptly after the first hard freeze, or turn a slightly yellow-brown before dropping off. The catalpa tree is the last tree to grow leaves in the spring. The winter twigs of northern catalpa are like those of few other trees, having sunken leaf scars that resemble suction cups. Their whorled arrangement (three scars per node) around the twigs is another diagnostic. The flowers are 3-6 cm across, trumpet shaped, white with yellow stripes and purple spots inside; they grow in panicles of 10-30. The fruit is a long, thin legume-like capsule, 20-40 cm long and 10-12 mm diameter; it often stays attached to tree during winter (and can be mistaken for brown icicles). The pod contains numerous flat, light brown seeds with two papery wings.

https://en.wikipedia.org/wiki/Catalpa_speciosa

## Bitternut Hickory

This Hickory tree was most likely planted to aid as a windbreak between fields. The wood of the Hickory tree is also popular for smoking meats. Bitternut Hickory is a large deciduous tree, growing up to 35 m tall, with a trunk up to 1 m diameter. The leaves are $15-30 \mathrm{~cm}$ long, pinnate, with 7-11 leaflets, each leaflet lanceolate, $7-13 \mathrm{~cm}$ long, with the apical leaflets the largest but only slightly so. The flowers are small wind-pollinated catkins, produced in spring. The fruit is a very bitter nut, 2-3 cm long with a green four-valved cover which splits off at maturity in the fall, and a hard, bony shell. Another identifying characteristic is its bright sulfuryellow winter bud.
https://en.wikipedia.org/wiki/Carya_cordiformis


## Common Invasive Trees at Windy Acres

## Autumn Olive

Autumn Olive is a deciduous shrub or small tree invasive species from eastern Asia. It typically grows 3.5 m tall, with a dense crown. It bears sharp thorns in the form of spur branches. Its four lobes flowers are fragrant and occur in clusters of white to yellow, 8-9 mm in length and 7 mm in diameter. The leaves are alternate, $4-10 \mathrm{~cm}$ long and $2-4 \mathrm{~cm}$ wide with wavy margins. The leaves are covered with minute silvery scales when they emerge early in spring but turn greener above as the scales wear off during the summer.
https://en.wikipedia.org/wiki/Elaeagnus_umbellata
https://www.invasive.org/browse/subthumb.cfm?sub=3021\&start=1

## Tree of Heaven

Ailanthus altissima is a medium-sized tree that reaches heights between 17 and 27 meters ( 56 and 89 ft ) with a diameter at breast height of about 1 m ( 40 inches). It is considered a vigorous invasive species. The bark is smooth and light grey, often becoming somewhat rougher with light tan fissures as the tree ages. All parts of the plant have a distinguishing strong odor. The leaves are large, odd- or even-pinnately compound on the stem. They range in size from 30 to 90 cm ( 1 to 3 feet) in length and contain 10-41 leaflets organized in pairs, with the largest leaves found on vigorous young sprouts. When they emerge in the spring, the leaves are bronze then quickly turn from medium to dark green as they grow. The fruits grow in clusters; a fruit cluster may contain hundreds of seeds. Seeds are dispersed primarily by wind and secondarily water.



[^0]:    https://en.wikipedia.org/wiki/Quercus_rubra

[^1]:    https://en.wikipedia.org/wiki/Willow

