

## Eastern White Pine

*Pinus strobus*



**Mature Height:** 50-80'

**Mature Width:** 20-40'

**Wildlife Benefits:** Eastern white pine seeds are favored by many small mammals and birds. While potentially damaging to the trees, the bark is eaten by mammals such as beavers, porcupines, rabbits and mice. White pines provide nesting sites for many birds including woodpeckers, common grackles, mourning doves, chickadees and nuthatches.

**Notes:** Fast growing, at 2-3' per year, but is sensitive to air pollution, road salt and soil compaction.

## Norway Spruce

*Picea abies*



**Mature Height:** 40-60'

**Mature Width:** 25-30'

**Wildlife Benefits:** Norway spruce trees support a wide variety of wildlife. They are important as winter cover for deer and small game. Song birds and fur bearers also frequent these forest types. Norway spruce also makes a good roosting tree for hawks and owls.

**Notes:** Medium growth rate of 1-2' per year, particularly when young. This is one of the fastest growing spruces. The Norway spruce grows in acidic, loamy, moist, sandy, well-drained and clay soils. It has some drought tolerance. Full sun is the ideal condition for this tree, meaning it should get at least six hours of direct, unfiltered sunlight each day.

## Kentucky Coffeetree

*Gymnocladus dioica*



**Mature Height:** 60-75'

**Mature Width:** 40-50'

**Wildlife Benefits:** Kentucky coffeetree is used by nesting birds. Due to the tree's toxic plant parts such as the leaves and raw seeds, there is little wildlife usage as a source of food. This tree should not be planted near livestock or their water as the seedpods can harm the animals if consumed.

**Notes:** Kentucky coffeetree was formerly planted around farmsteads. It is tolerant to a wide range of conditions such as drought, chalk (limestone), and urban conditions. The tree has been planted on mine spoils for soil reclamation and stabilization. This pest free tree is an alternative to ash and elm which have been ravaged by insects and disease.



## River Birch

*Betula nigra*



**Mature Height:** 40-70'

**Mature Width:** 40-60'

**Wildlife Benefits:** The catkins of the River Birch are used by redpolls and pine siskins. The foliage is eaten by deer and other browsers. The small but plentiful seeds are appreciated by a wide range of songbirds.

**Notes:** This tree grows at a medium to fast rate, with height increases of anywhere from 13" to more than 24" per year. Easily grown average, medium to wet soils in full sun to part shade. River birch is perhaps the most culturally adaptable and heat tolerant of the birches. Prefers moist, acidic, fertile soils including semi-aquatic conditions, but also tolerates drier soils. Adapts well to heavy clay soils and will tolerate poor drainage. Avoid pruning in spring when the sap is running. Works well for holding stream banks and keeping erosion in check.

## Musclewood (Hornbeam)

*Carpinus caroliniana*



**Mature Height:** 20-30'

**Mature Width:** 20-30'

**Wildlife Benefits:** The seeds, buds, or catkins are eaten by a number of songbirds, ruffed grouse, ring-necked pheasants, bobwhite, turkey, fox, and gray squirrels. Cottontails, beaver, and white-tailed deer eat the leaves, twigs, and larger stems. Beaver heavily uses American hornbeam, because it is readily available in typical beaver habitat.

**Notes:** American hornbeam is planted in landscapes and naturalized areas. It prefers deep, fertile, moist, acidic soil and grows best in partial shade, but will grow in full sun. Its chief liabilities in cultivation are a relatively slow growth rate and difficulty in transplantation. It is not drought-tolerant. The wood is whitish, extremely hard, and heavy. It has been used for making mallet heads, tool handles, levers, and other small, hard, wooden objects. The wood is not subject to cracking or splitting and was used by American pioneers for bowls and dishes.



## Bur Oak

*Quercus macrocarpa*



**Mature Height:** 60-100'

**Mature Width:** 60-120' (often wider than they are tall!)

**Wildlife Benefits:** Acorns are an important source of food for wildlife, however it may take up to 35 years for this tree to bear a first crop of acorns. Other wildlife, such as deer and porcupine, eat the leaves, twigs and bark.

**Notes:** Excellent shade tree. Generally considered to be a low-maintenance, long-lived tree. Grows relatively rapidly, compared to other native oak species. Easily grown in average, dry to medium, well-drained soils in full sun. Prefers moist well-drained loams, but adapts to a wide range of soil conditions. Good drought tolerance. A good urban tree since it is resistant to air pollution and car exhaust. The acorns of this species, distinguished by very deep fringed cups, are the largest of all native oaks.

## Highbush Cranberry

*Viburnum trilobum*



**Mature Height:** 8-15'

**Mature Width:** 8-10'

**Wildlife Benefits:** Pheasants, deer, raccoons, chipmunks, squirrels, rabbits, robins, cedar waxwings, and other songbirds have been known to eat the fruits.

**Notes:** The highbush cranberry is actually not a cranberry at all, though its fruit, or 'drupes' as they are known taxonomically, strongly resemble cranberries in both appearance and taste. This native viburnum offers ornamental interest year-round, flowers in spring, red fruit in late summer, and red fall color. A large and hardy deciduous shrub with a moderate growth rate of up to 3 ft. per year. Arching stems and a very dense, rounded form, make it a popular landscaping choice for use as a screening hedge. For a solid screen, plants should be spaced 2 to 3 ft. apart. Although it is shade-tolerant, it prefers full sun and will grow and bear fruit the best in sunny conditions. Likewise, it can occur in many different soils (e.g., sand, loam, clay) but it typically grows best in consistently wet but well-drained soils (i.e., more on the loamy side).



## New Jersey Tea

*Ceanothus americanus*



**Mature Height:** 18-42"

**Mature Width:** 18-36"

**Wildlife Benefits:** Its seeds are consumed by many birds, including wild turkeys and quail. During winter, its twigs are sought as food by the white-tailed deer. The flowers are used as food and the shoots host the larvae of several species of butterflies and other pollinators.

**Notes:** Natively found on dry plains, prairies, or similar untreed areas, on soils that are sandy or rocky. This compact white-flowering shrub prefers full to partial sun, and medium to dry soils. New Jersey tea was a name coined during the American Revolution, because its leaves were used as a substitute for imported tea.



## Swamp White Oak (part of Wildlife Pack)

*Quercus bicolor*



**Mature Height:** 50-60'

**Mature Width:** 50-60'

**Wildlife Benefits:** Swamp White Oak provide cover for birds and mammals. The acorns are sweet and are an important food for wildlife such as squirrels, mice, white-tailed deer, beaver, black bear, and a variety of birds, including ducks and turkey.

**Notes:** Swamp white oak is planted on highway rights-of way and is frequently used as a shade tree for large lawns, golf courses, parks, and naturalized areas. The crown shape and bi-colored leaves (dark above, lighter beneath) are attractive features; fall color is yellow, with occasional red-purple. The trees can grow well in areas that are dry, poorly drained and wet, or even occasionally flooded, and they will tolerate significant soil compaction.

## American Hazelnut (part of Wildlife Pack)

*Corylus americana*



**Mature Height:** 6-15'

**Mature Width:** 6-8'

**Wildlife Benefits:** The nuts are eaten by squirrels, deer, turkey, woodpeckers, pheasants, grouse, quail, and jays. The male catkins are a food staple of turkeys throughout the winter. The dense, low growth habit provides cover and nesting sites for birds and other wildlife. It hosts numerous butterflies, including Polyphemus and Io moths.

**Notes:** An easy-to-grow native shrub that produces edible nuts in late summer approximately 2-3 years after planting. Able to thrive in a wide range of conditions, this native shrub tends to sucker from the roots and is a good choice for hedgerow or windbreaks. It can be pruned at any time of year and its deep green leaves turn copper and yellow in autumn. Tolerates virtually any soil type and is drought-tolerant once established. A single shrub will produce some nuts, but as a wind-pollinated species 3-5 shrubs are recommended for optimal nut production.



## Ninebark (part of Wildlife Pack)

*Physocarpus opulifolius*



**Mature Height:** 5-10'

**Mature Width:** 4-6'

**Wildlife Benefits:** The flowers provide nectar and pollen to a wide range of visiting insects, including bees, wasps, flies, and butterflies.

**Notes:** Ninebark is closely related to the better-known Spiraea species and they have similar flowers and fruits. Easily grown in average, slightly acidic, dry to medium moisture, well-drained soil in full sun to part shade. Appreciates some afternoon shade. Prune as needed immediately after bloom. Noted for the exfoliating bark on mature branches, which peels in strips to reveal several layers of reddish to light brown inner bark. Bark provides winter interest, but is usually hidden by the foliage during the growing season.

## American Wild Plum (part of Wildlife Pack)

*Prunus americana*



**Mature Height:** 15-30'

**Mature Width:** 20-25'

**Wildlife Benefits:** The fruit is eaten by several species of bird. Its blossoms provide food for insects such as bees. The tree itself provides nesting sites and materials for birds as well.

**Notes:** Slow growth rate, less than 12" per year. It will tolerate several days of flooding. Makes a good choice for residential landscapes and sites under power lines, however should be planted back from patios, decks and walks because the branches can have thorns, and the fruits can make a mess in the summer. Development of suckers from the root system makes American plum effective in stabilizing stream banks and gullies. Also makes a nice windbreak.



## Red Osier Dogwood (part of Wildlife Pack)

*Cornus stolonifera* AKA *Cornus sericea*



**Mature Height:** 7-10'

**Mature Width:** 7-10'

**Wildlife Benefits:** The stems and new shoots are frequently browsed by small mammals and deer (we recommend a deer-resistant cover during establishment!), and the fruit is an important autumn food source for small mammals and a large variety of birds.

**Notes:** A large, fast-growing shrub that spreads by underground stolons to form dense thickets. In the wild, it most commonly grows in areas of rich, poorly drained soils, such as riparian zones and wetlands. Prefers partial to full sun but will tolerate shade. The dark red stems against a fresh white snow may be its most attractive season. Twig color is generally brighter when plants are in full sun. Attractive white flowers in early-spring add pollinator benefits, and white to pale blue fruit in late summer provide additional visual interest in the landscape.

## American (Black) Elderberry (part of Berry Pack)

*Sambucus canadensis*/ *Sambucus nigra* var. *canadensis*



**Mature Height:** 5-12'

**Mature Width:** 5-12'

**Wildlife Benefits:** The edible berries provide food for dozens of bird species and other wildlife. Deer eat twigs and leaves (since shrub is fast growing, they don't usually do any permanent damage).

**Notes:** Grow in medium to wet, well-drained soils in full sun to part shade. Spreads by root suckers to form colonies. Prune suckers as they appear unless naturalizing. A large number of late winter pruning options include (a) pruning out dead or weakened stems, (b) shortening one year stems or (c) cutting back to the ground to rejuvenate. Some horticulturists recommend a hard spring pruning for maintaining best foliage and habit. Provides effective erosion control on moist sites.



## Allegheny/Smooth Serviceberry (part of Berry Pack)

*Amelanchier laevis*



**Mature Height:** 15-25' (occasionally as tall as 40')

**Mature Width:** 15-30'

**Wildlife Benefits:** Early flowers provide nectar to insects just emerging from winter hibernation. Sweet juicy fruits are eaten by many birds, small mammals, and humans!



**Notes:** This tall shrub or small tree is easily grown in average, medium, well-drained soil in full sun to part shade. It is usually found along woodland edges and thickets. The showy, lightly fragrant blossoms appear in early spring and give way to dark purple-black berries in the summer. Very similar to the Downy Serviceberry, but distinguished by the smooth, hairless foliage. The berries are sweeter and juicier than other native serviceberries! Attractive understory tree for lawns, shrub borders, woodland margins or native plant areas. Can be grown as tall informal hedges or screens. Prune to maintain the growth form you prefer, or let it naturalize to a shrubby, multi-branched bush.

## Flowering Raspberry (Part of Berry Pack)

*Rubus odoratus*



**Mature Height:** 3-8'

**Mature Width:** 6-12'

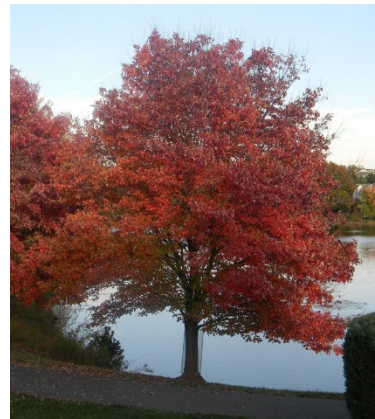
**Wildlife Benefits:** This plant is beneficial for songbirds, game birds, butterflies, bees, large and small mammals. Also used for nesting material for bees.

**Notes:** Grow in average, medium moisture, well-drained soil in full sun to part shade. Has good shade tolerance. Prune immediately after fruiting. A suckering shrub with cane-like stems. Forms broad patches and thickets in the wild. A striking plant when established in large, wooded areas. One of the best of the ornamental raspberries because of its rose-like, fragrant, 2" wide, rose-purple flowers which appear over a long summer bloom period. Hairy stems but virtually no prickles.



## Red Mulberry (part of Berry Pack)

*Morus Rubra*



**Mature Height:** 35-60'

**Mature Width:** 35-40'

**Wildlife Benefits:** The sweet, juicy fruit is eaten by birds and mammals (including humans!), but unlike the invasive white mulberry this species doesn't reach full maturity and highest yield for up to 30 years. A larval host to some butterfly and moth species, including mourning cloaks.

**Notes:** This somewhat scrubby tree is best grown in rich, moist, well-drained soils in full sun to part shade, with best fruiting in full sun. Male and female flowers usually appear on separate trees (dioecious). Trees with only male flowers obviously never bear fruit. Planting in groves is recommended for best pollination and fruiting. May self-seed prolifically.