


So, What Should I Plant?

Trees, Shrubs and Vines with Wildlife Values



Tree nurseries and garden catalogs are a lot like candy stores. The color, shape, texture, flowers, fruit and many other factors provide a multitude of choices that can entice you to purchase more plants than you really need, or to buy something you don't need at all. Before you buy, consider the following: What plants are already attracting wildlife to your property? What good wildlife trees and shrubs are missing? What wildlife do you want to attract? Can a particular plant grow in your location and in your soils? This publication will give you the information you need to make the best plant selections for wildlife on your land.

Before you begin making decisions about what trees, shrubs or vines you should plant on your property to attract wildlife, it is essential that you understand some fundamental concepts in wildlife management. Be sure to read **Calling All Wildlife** in this series to help you with these concepts and with basic habitat evaluation on your land. Then look around your neighborhood, find out what naturally grows in your area, and decide how you can enhance the native habitat or landscape features on your property. For habitat inventory information, mapping tips and assistance in creating a wildlife management plan for your property, refer to **Putting Pen to Paper** in this series.

Also, read the **Wisconsin Wildlife Primer** to help you understand which animals occur in your region of Wisconsin, what they eat,

what habitats they prefer and what they need for nest or den sites. The more information you have, the better you'll understand your land and the wildlife it supports.

The publication you are now reading will help you evaluate the wildlife value of plants currently growing on your property. Once you've read the other publications mentioned above, use this bulletin to help decide which plants you could add to your property to attract wildlife native to the habitats on your land.

All plants described in this publication were selected for their value to wildlife. Some of the plants were selected because they provide good-to-excellent food sources. Some were selected because they provide maximum winter shelter. Others were selected because they are common on the Wisconsin landscape, offer some wildlife value, and could very well be growing on your property already (e.g., mulberry or boxelder).

When creating a wildlife management plan for your property, keep in mind that—per square foot of land invested—shrubs will provide more food and cover for wildlife than trees. That's because shrubs bear fruit at an earlier age, and they bear that fruit from year to year more consistently than trees. You will receive a much faster payback by planting more wildlife shrubs than trees. Nevertheless, the wildlife trees described here provide excellent food and/or shelter and should be included in your plans. You'll just have to wait a little longer to reap the benefits.

The geographical location of your property in Wisconsin, its soil types and moisture levels, depth to bedrock, the kinds of wildlife that already live on your property, and your own personal wildlife management goals will determine what plants you should consider using to attract wildlife.

Native vs. Non-Native

Since the arrival of European settlers, our native Wisconsin landscape has changed dramatically—its overall biological diversity has decreased. Today, natural resource managers are dealing with many problems associated with the widespread invasion of non-native, or alien, plants. Often, these alien plants are so aggressive in their growth

Note: Emphasis is placed on native plants, since these are best adapted to Wisconsin's climate and soils. Not every plant described here is one that you can readily purchase at your local nursery. You may have to order seeds or potted plants from one of Wisconsin's native plant nurseries listed in **Getting the Help You Need**. Not all native plants described in this publication are ones that you would want to plant (boxelder, for example); they have wildlife value, nevertheless and you may want to keep them on your land if they are already there.

they choke out, shade out or otherwise out-compete the more beneficial native plants that originally grew on Wisconsin's soils.

To help maintain our state's native biodiversity, choose plants native to Wisconsin since they are especially suited for our state's climate and are part of our natural history. In particular select those native plants which are adapted for your property and soil types. Some plants introduced from other parts of the United States or other countries may not be hardy enough to withstand the extremes of drought and cold peculiar to Wisconsin. Others may survive all too well and become invasive pests. *Cultivars*—horticulturally-altered or "improved" varieties of native plants—may work well as landscape plants around your house, but are inappropriate for native restorations or wildland plantings.

Sometimes the best thing you can do to improve your property's ability to attract a high-quality assemblage of native wildlife is to control the alien plants that may have taken hold. This may mean conducting a controlled burn, pulling new invaders, cutting brush and treating the stumps with a brush herbicide, or controlling alien grasses or weeds with an approved herbicide. Contact the Bureau of Endangered Resources, Madison, to receive a copy of **Invasive Species Control Recommendations**.

If you don't have a problem with exotics on your land, you may find that the best way of enhancing your property for wildlife is to plant trees, shrubs and vines native to your area. Sometimes, the best tools of the wildlife management trade are the axe, the match and the spade.



Plant for Diversity

It is rare in nature to find "monocultures"—large stands of a single plant type. You and your wild neighbors will be better off if you plant a good assortment of native trees, shrubs and vines adapted to the habitats on your property. The greater the variety of native plants you select, the more wildlife your land can support. By selecting an assortment of native plants, you can minimize your risk of losing all your plants should disease strike a particular species of plant. Also, if one species should fail to produce a nut or fruit crop in a given year, another kind of nut- or fruit-bearing plant could provide alternative food sources.

Where Can I Get The Plants I Need?

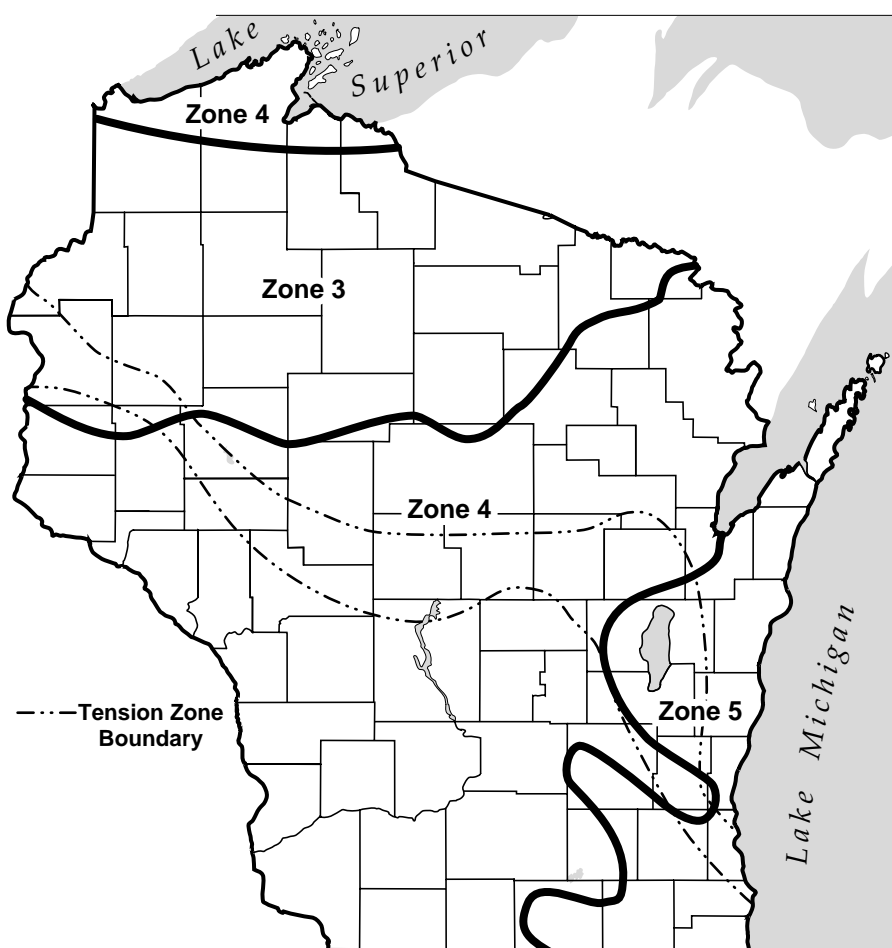
You can purchase some plants from local or native plant nurseries or from one of the Department of Natural Resources nurseries listed in **Getting the Help You Need** in this publication series. DNR's Wilson Nursery in Boscobel specializes in wildlife trees and shrub packets. Contact your local DNR office for a trees and shrubs order form. If you have questions, or want to make an extensive planting, contact your local DNR wildlife manager or forester. They can give you detailed advice about planting, weed control, and special concerns associated with your specific property and the plants you're interested in growing.

Plant Hardiness Zones and the Tension Zone

Be sure plants are hardy for your zone, or if your planting area is borderline, pick a sheltered area for tender species.

Wisconsin is divided into two distinct floristic provinces, the southern *Prairie-Forest Province*, and the northern *Hardwoods Province*. The area of overlap of these two floral realms is called the **Tension Zone**.

Many of the state's native plant species survive, or grow well, only in their natural province, and should not be planted far outside of their native ranges and preferred zones.



Using This Publication

The trees, shrubs and vines are divided into 6 categories:

1. Vines
2. Shrubs
3. Fruit-bearing Trees
4. Nut-bearing Trees
5. Other Deciduous Trees
6. Evergreen Trees

We describe the wildlife benefits, geographical range and any special soil characteristics for each tree, shrub and vine. If a specific soil type is not listed, assume that the plant grows on "average" soils that are neither too wet nor too dry, nor too infertile or too organic. When you purchase trees and shrubs, be sure to use the scientific name to avoid getting the wrong plant. Also, carefully read and follow the planting instructions that come with your purchase.

Warning: Rabbits, mice and voles are active all winter. Since leaves, grass and other typical summer foods are unavailable, they often resort to eating the tender outer bark from young trees and shrubs in order to survive. To protect your landscaping investment from damage by these bark-eating mammals, encircle young yard trees and shrubs with chicken wire, hardware cloth, plastic tree-guards or tree wrap. For wildland plantings, mow the grass surrounding your plantings to remove the cover that rabbits, mice and voles use. You may want to install raptor perch poles as well. Your local garden center can assist you with which choice is appropriate.



Key for the Following Listing:

- Common name of tree, shrub or vine
- Scientific name
- Planting zones
- Season it provides food
- Descriptive paragraph about the life cycle of the plant and the wildlife that uses it.

All the plants in this publication provide some form of nesting, resting or hiding cover for one animal or another. However, the evergreens are of extreme importance in winter since their green boughs provide the greatest shelter from harsh weather. Vines also provide excellent year-round shelter for rabbits, some songbirds, pheasants and bobwhite quail.

1. Vines

American Bittersweet

Celastrus scandens

Zone 3

Winter fruit

American climbing bittersweet is a low rambling vine that grows along fencerows, streams and woodlands in well-drained soils statewide.

The bright red berries are set off by capsules that split open to reveal a brilliant yellow-orange interior, which helps verify that it is the native plant, rather than the similar, but alien bittersweet *Celastrus orbiculatis*.

Beware of this alien; it can be particularly invasive and nurseries often sell it instead of the native bittersweet. American bittersweet may retain its fruit throughout the winter. Buy from nurseries or propagate this plant from seed or stem cuttings. Do not dig up wild bittersweet—it is becoming rare in some places. Many birds eat its seeds, including



bluebirds and robins. Grouse, pheasants, turkeys and quail eat the seeds and buds. Leaves are often nibbled by rabbits and squirrels.

Virginia Creeper

Parthenocissus quinquefolia

Zone 4

Fall food

Look for this native vine creeping along the forest floors, growing up tree trunks in Wisconsin's southern forests, climbing the sides of abandoned farm buildings, growing along roadsides, and trailing along fences. Its striking scarlet autumn foliage and deep blue berries on bright red stalks make it a popular choice for backyard trellises and garden walls. Brown thrashers, bluebirds and robins like the fruit, as do woodpeckers, white-breasted nuthatches and scarlet tanagers. A variety of vireos, warblers, thrushes, finches and small mammals also enjoy the fruit.



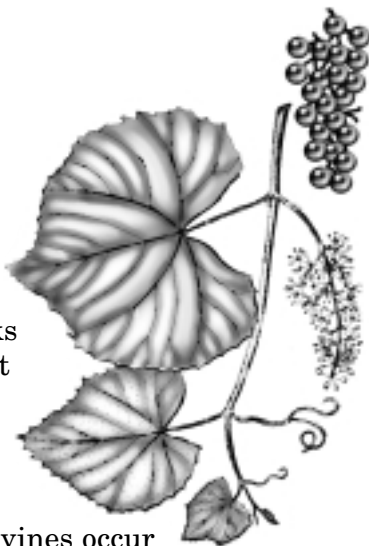
Wild Grape

Vitis species

Zones 3 to 5

Fall food

Wild grapevines grow along woodland edges and up tree trunks or along the forest floor in open woodlands. They also are common growing along fencerows. These vines occur throughout Wisconsin, but are most common in southern farmlands. Summer grape (*Vitis aestivalis*) and riverbank grape (*Vitis riparia*) are two native grapes. Grapes can be very aggressive and cover and shade out other vegetation. The berries are consumed by



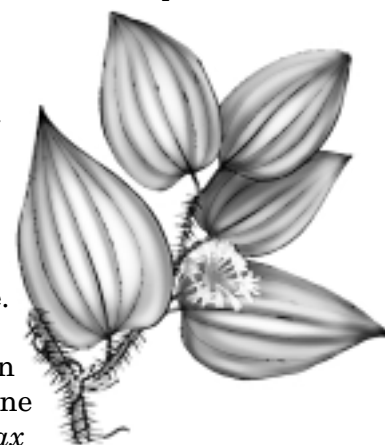
raccoons, red foxes, black bears, opossums, skunks, quail, wild turkeys, ruffed and sharp-tailed grouse, and such songbirds as blue and gray jays, thrushes, brown thrashers, gray catbirds, cedar waxwings, Baltimore orioles, scarlet tanagers, cardinals, and some vireos, warblers, blackbirds, grackles and finches. Deer like the leaves and twigs. Some birds use the shredded bark to build their nests.

Bristly Greenbrier *Smilax hispida*

Zone 5

Summer fruit

This native climbing vine, covered with tiny thorns, forms tangled, prickly thickets in forests throughout the state. Some forms of greenbrier are known as carrion flowers. One carrion flower (*Smilax ecirrhata*) can be found growing in lowland woods in southern Wisconsin, while common carrion flower (*Smilax lasioneura*) is found growing in open woods and along fencerows. Another carrion flower (*Smilax herbacea*) is generally uncommon. The tangled nature of greenbriers make them excellent cover for wildlife. Deer and rabbits browse the vine, and small mammals, ring-necked pheasants, gray catbirds, cardinals, thrushes and sparrows eat the blue-black berries.



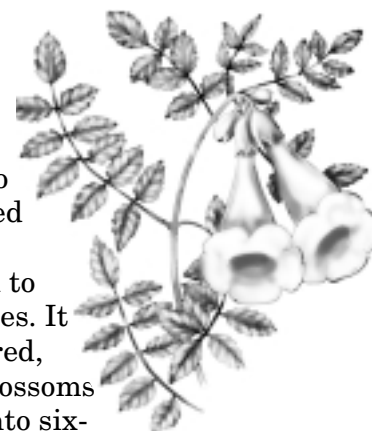
Trumpetvine

Campsis radicans

Zone 5

Summer nectar

This vine, native to the southern United States, makes an attractive addition to backyard landscapes. It has large, orange-red, trumpet-shaped blossoms which later turn into six-



inch-long, slender fruit pods. The blooms of this ornamental landscape plant attract ruby-throated hummingbirds.

2. Shrubs

Blackberry

Rubus

allegheniensis

Black Raspberry

Rubus occidentalis

Thimbleberry

Rubus parviflorus

Zones 3 to 4

Summer fruit

Blackberries, raspberries and thimbleberries grow along woodland edges, fencerows and clearings. Blackberries and raspberries grow statewide, while thimbleberries grow only in the Lake Superior region. Blackberries need full sun; raspberries and thimbleberries tolerate some shade. All provide excellent summertime food for more than 100 different kinds of birds and mammals. Just about every kind of woodland edge bird feasts on the berries, from catbirds, brown thrashers, pine grosbeaks, orioles, robins and other thrushes to scarlet tanagers, blue jays, cardinals, pheasants, yellow-breasted chats and fox sparrows. Ruffed and sharp-tailed grouse, bobwhite quail, turkeys and woodcock also consume the berries, as do black bears, raccoons, chipmunks and squirrels. The dense, prickly thickets provide good escape cover for rabbits, chipmunks and birds. Beware of planting these berries in small areas. They tend to spread quite aggressively and can quickly take up a great deal of space, as well as prevent you from moving about in the area.



thimbleberry

Green Alder

Alnus viridis

Speckled Alder

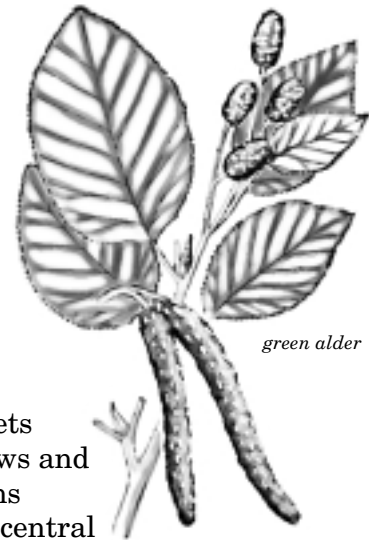
Alnus incana

Smooth Alder

Alnus serrulata

Zones 3 to 5

Spring and summer food



green alder

Alders thrive in thickets found in moist meadows and streambank floodplains throughout northern, central and southern Wisconsin. The green alder is found in bogs, cool woods, and shores. The shrubs can grow to a height of over eight feet. Speckled alder is hardy farther north and tolerates more shade. Green alder is often found growing along lakeshores. Grouse and small mammals take cover in these thickets and woodcock find them ideal for nesting. Goldfinches, pine siskins, redpolls and sharp-tailed grouse eat the seeds, while ruffed grouse consume the buds, catkins and seeds. Beavers, snowshoe hares and deer browse on the leaves and twigs. None of these are ornamental plants. Beware of the alien European alder (*Alnus glutinosa*); it is very invasive.

Gray Dogwood

Cornus racemosa

Zone 4

Late summer and fall food

This shrub grows up to 7 feet high on a variety of soils throughout Wisconsin. It needs full sun, and since it regenerates from underground stems, it forms clumps. Gray dogwood has high wildlife value, especially in August when its small, white berries ripen. Woodcock and songbirds take cover in gray dogwood thickets, and evening grosbeaks, cardinals, cedar waxwings, pheasants, ruffed grouse and bobwhite quail relish its fruit. Black



bears, squirrels, beavers, raccoons and skunks eat the fruits and leaves. It can be invasive in prairie areas and can spread aggressively. Controlled burning provides a good management tool. Better yet, cut stems in summer or fall and apply herbicide to the cut stems.

Red-osier Dogwood *Cornus sericea*

Zone 3 to 5

Fall food

This dogwood with bright red stems and showy white flowers is common in swamps and wet meadows, and is a dominant shrub in special habitats known as shrub carrs. It is extremely winter-hardy throughout Wisconsin.

Its colorful appearance makes it a popular ornamental for landscaping. May flowers produce a clump of small white berries by mid-summer. Red-osier dogwood grows from 4 to 10 feet tall on wet to well-drained soils in sun or shade. In late winter and early spring, the stems turn from a brown-red to a bright red, providing an exciting splash of color to an otherwise white, snow-covered landscape. Wild turkeys, ruffed grouse, bobwhite quail, woodpeckers, flycatchers, catbirds, brown thrashers, cedar waxwings, cardinals and grosbeaks feed heavily on the berries. This shrub provides excellent cover, but can spread in wetland areas and needs to be controlled with prescribed burning.



Silky Dogwood

Cornus amomum

Zone 5

Late summer and fall food

Silky dogwood grows to 4–10 feet tall, prefers moist soils, and grows in shade or full sun along the edges of marshes or wet meadows. Landowners like the white flowers that bloom in May and mature into blue berry-like fruits in August. Silky dogwood is prime food for the cardinal, evening grosbeak, robin and pine grosbeak, which glean the berries off by September. Wild turkeys, ruffed grouse, bobwhite quail and ring-necked pheasants relish both the buds and the berries. Deer, squirrels, black bears and beavers browse on the stems and leaves.



Common Elderberry

Sambucus canadensis

Zone 5

Summer food

Elderberry is a tall shrub that can grow up to 10 feet high in average to moist soils statewide except in the far north, in disturbed areas like roadsides and fencerows. The fruits are eaten by people and wildlife. Beware—the red fruits from the related *Sambucus pubens* can be toxic. The showy white flowers of common elderberry make this a landscape shrub to consider. However, it has straggly long stems and relatively few leaves. It makes a good ornamental if bunched with other shrubs. Eastern bluebirds, ring-necked pheasants, wild turkeys, mourning doves, grouse, grosbeaks, woodpeckers, squirrels and rabbits eat the fruits; white-tailed deer browse on the leaves.



American Hazelnut*Corylus americana***Beaked Hazelnut***Corylus cornuta*

Zones 3 to 4

Fall and winter food

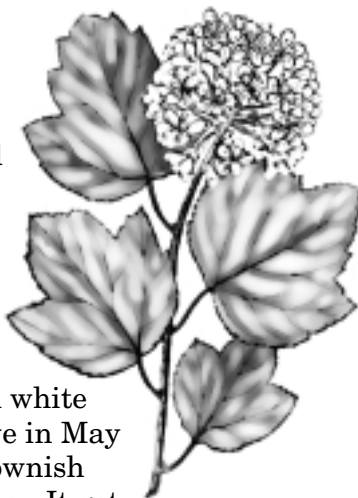
If you live north of the tension zone, (see map on page 3), plant beaked hazelnut; if you live on the south side of the zone, or in dry, sandy woods, plant American hazelnut. These bushes grow best on moist, fertile soils in thickets and make good hedgerows and woodland border plants. Hazelnuts are consumed by fox and red squirrels, eastern and least chipmunks, blue jays, hairy woodpeckers, wild turkeys and ring-necked pheasant. Ruffed grouse readily ingest the catkins. Deer, moose, snowshoe hares and beavers eat the leaves and twigs. The dense thickets make good cover for woodcock, grouse and small mammals.

**Ninebark***Physocarpus**opulifolius*

Zones 3 to 5

Fall and winter food

Ninebark is a good choice for very dry sites and is found from blufftop "goat prairies" to sedge meadows. The small white flowers are attractive in May and develop into brownish capsules in September. It gets its name because its bark peels off in papery strips resembling "9s." This shrub may reach 10 feet high at maturity. Ruffed grouse eat the buds and some songbirds eat the small seeds. The primary wildlife value of ninebark is the cover its multi-stemmed, arching branches provide to small mammals and nesting birds.

**American Highbush Cranberry***Viburnum trilobum*

Zones 3 to 5

Winter Food

Highbush cranberry grows in moist to medium-moist woods but it can tolerate full sunlight. This shrub in the Viburnum family reaches 10–13 feet in height. Its attractive white flower clusters in May turn into bright orange-red fruits by September, making it a popular landscape shrub. The tart fruits are not very palatable to most birds and so persist on the shrub throughout winter. They provide a late-winter emergency food source for songbirds, grouse, pheasants, wild turkeys, white-tailed deer, cottontail rabbits and small mammals. Rabbits and small rodents eat the bark of young plants. Cedar waxwings prefer these berries as a late winter food after freezing has "sweetened" them. Be sure not to plant the alien European highbush cranberry (*Viburnum opulus*), for it is an invasive and persistent non-native.

**Nannyberry***Viburnum lentago*

Zone 3

Mapleleaf Viburnum*Viburnum**acerifolium*

Zone 3

Arrowwood*Viburnum dentatum*

Zone 4

Late summer, fall, and winter food



These are three other popular Viburnums. Arrowwood and nannyberry grow best in the shade of woodland borders across southern Wisconsin. Mapleleaf viburnum is a three- to six-foot shrub preferring forest shade. They are planted in backyards for their flowers and

showy dark blue-to-black fruits. Nannyberry makes excellent winter food. Ruffed grouse, brown thrashers, cedar waxwings, thrushes, woodpeckers, several finches, red squirrels and deer eat the fruit of these *Viburnum* shrubs.

Staghorn Sumac

Rhus typhina

Smooth Sumac

Rhus glabra

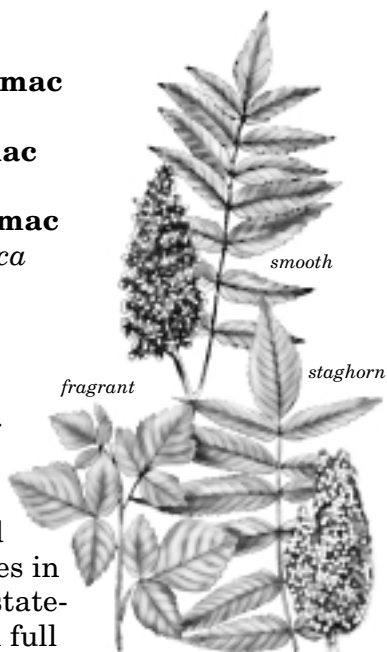
Fragrant Sumac

Rhus aromatica

Zone 4

Winter food

Sumacs form thickets along roadsides, clearings, fencerows and woodland edges in sandier soils state-wide. All need full sun. Staghorn sumac has brilliant scarlet foliage in the fall and showy red fruit throughout winter. Sumac is beneficial for a variety of wildlife; however, you should consider carefully before establishing these shrubs if they are not presently on your property. Smooth and staghorn sumacs grow rapidly in spreading, circular colonies, and spread as well by seed; it can be difficult to control once established. Fragrant sumac is a beautiful landscape plant, and is adapted to dry-to-average, moist rocky woodlands. Sumac fruit clusters are an important winter survival food for ring-necked pheasants, ruffed grouse, bobwhite quail, woodpeckers, blue jays, chickadees, cardinals, goldfinches, deer and cottontail rabbits. Deer, cottontails and squirrels nibble on the bark and twigs. In addition, staghorn sumac attracts butterflies.



Wild Rose

Rosa species

Zones 3 to 5

Winter Food

Wild roses grow in thickets in meadows, open woods, stream margins, fencerows, roadsides and woodland edges across the state. Too many varieties exist to mention individually. Most have beautiful flowers, and their rosehips are eaten as emergency winter food by ring-necked pheasants, sharp-tailed grouse and prairie chickens. Deer, cottontail rabbits and small mammals browse the twigs. If you intend to plant wild roses, **do not plant** the alien multiflora rose (*Rosa multiflora*). This invasive non-native is illegal to plant under the Wisconsin nuisance weed law because it is very aggressive and spreads rapidly.



3. Fruit-bearing Trees

Prairie Crabapple

Pyrus ioensis

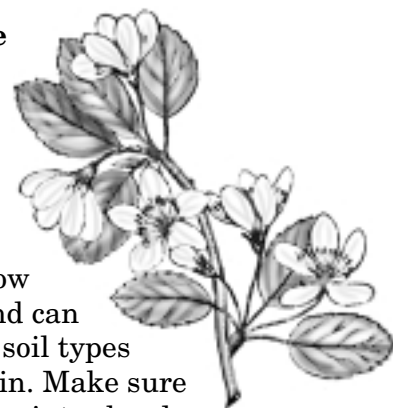
Sweet Crabapple

Pyrus coronaria

Zone 5

Fall and winter food

Some crabapples grow up to 25 feet high and can be planted on many soil types throughout Wisconsin. Make sure the tree you plant is winter hardy in your area. The alien Siberian crab (*Malus baccata*) is a large crab hardy throughout Wisconsin. It occasionally escapes to the wild. The Sargent crab (*Malus sargentii*) is also an alien. It produces abundant white to pink blossoms in May. The tiny 1/4 inch red, yellow or orange fruits mature in September. Landowners cherish crabapples for their fragrant and colorful spring blossoms, and wildlife also consume the fruit. Crabapples



make good winter food. Nearly 30 different kinds of birds eat the small apples, including cedar waxwings and robins. White-tailed deer and mallard ducks will also eat fruit that has fallen on the ground. Cottontail rabbits and deer will nibble on the leaves and bark.

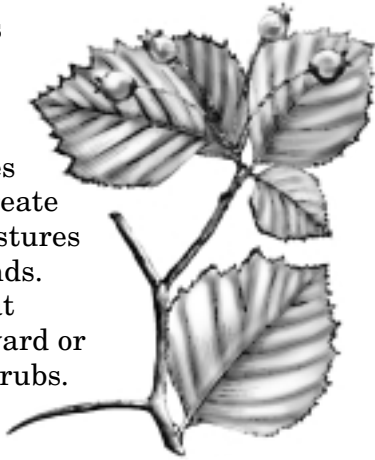
Hawthorn

Crataegus species

Zone 5

Winter food

These thorny trees or large shrubs create thickets in old pastures and open woodlands. They make a great shelterbelt, backyard or woodland edge shrubs. Numerous kinds of hawthorns are native to Wisconsin. Be sure to avoid the cultivars. In spring, honeybees and bumblebees swarm to the sweet-smelling, nectar-rich blossoms. In winter, fruits provide food for ruffed and sharp-tailed grouse, cedar waxwings, fox sparrows, thrushes and finches. Black bears and raccoons also consume the fruits, while white-tailed deer and cottontail rabbits browse on the twigs and bark. Many animals take cover in the thickets that hawthorns form. Brown thrashers often find these shrubs to be prime nest sites, and northern shrikes use the thorns to impale their prey before feeding.



Black Cherry

Prunus serotina

Pin Cherry

Prunus pennsylvanica

Choke Cherry

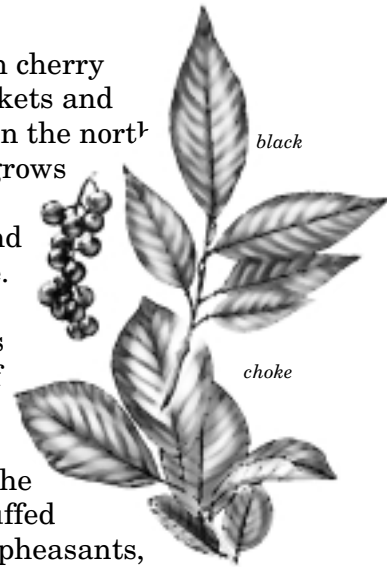
Prunus virginiana

Zones 3 to 4

Summer food

Black cherry grows most commonly in southern hardwood forests. This is the largest cherry and can reach 75 feet in height. Pin cherry and choke cherry reach approximately

25 feet in height. Pin cherry grows in woods, thickets and clearings primarily in the north while choke cherry grows along thickets, woodland borders and shorelines statewide. All native cherries make good plantings around the border of your yard. Cherries are one of the best wildlife food trees. The fruit is favored by ruffed grouse, ring-necked pheasants, robins, brown thrashers, gray catbirds, blue jays, cedar waxwings, thrushes, vireos, grosbeaks, finches, flycatchers and red-bellied and red-headed woodpeckers. Black bears, red foxes, cottontail rabbits, raccoons, squirrels, eastern chipmunks and mice eat fruit that has fallen to the ground. Deer and rabbits nibble on the leaves and twigs. Do not plant where cattle graze since the bark and leaves contain hydrocyanic acid, which is a poison to livestock.



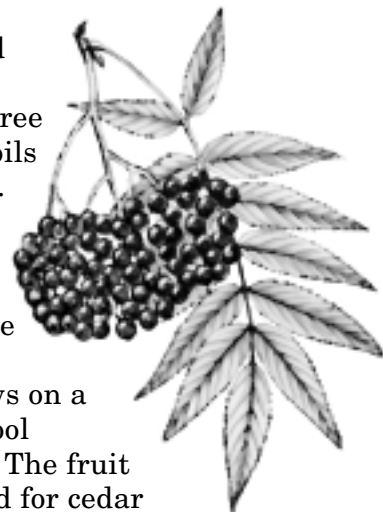
American Mountain Ash

Sorbus americana

Zone 3

Fall and winter food

In Wisconsin, this tree is found on moist soils or shallow dry soils. Attractive leaves, blossoms and bright orange fruit make this small tree popular with landowners. It grows on a variety of soils in cool climates statewide. The fruit provides winter food for cedar waxwings, evening and pine grosbeaks, sharp-tailed and ruffed grouse, red-headed woodpeckers, and thrushes. Watch for tipsy birds as they get intoxicated on fermented berries in late winter. Protect new plantings from deer or they'll nip the



tender twigs and leaves. Mountain ash also attracts eastern tent caterpillars and is very susceptible to fire blight disease. Avoid the alien European Mountain Ash (*Sorbus acuparia*), which is non-native and can be invasive.

Wild Plum

Prunus americana

Zone 3 to 5

Fall food

Wild plum grows in dense thickets along sunny roadsides and fencerows, often amidst other trees or shrubs.

Individuals can grow up to 15 feet tall. Landowners like the white blossoms that bloom in May. The one-inch, red-orange to blue sweet plums mature in August. Avoid cultivars and exotics. Wild plums provide excellent nesting habitat for many songbirds and cover for small mammals. Foxes and other mammals eat the fruit and deer browse on the leaves and twigs. The fruit also makes excellent jelly and jam.



Eastern Serviceberry or Shadbush

Amelanchier canadensis

Downy Serviceberry

Amelanchier arborea

Smooth Serviceberry

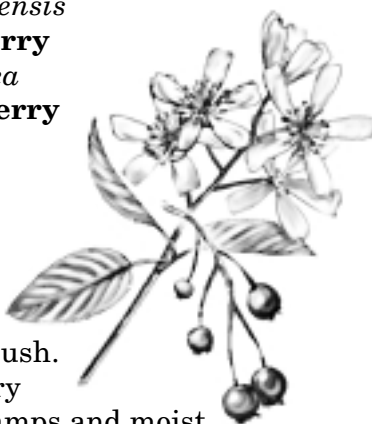
Amelanchier laevis

Zones 3 to 5

Early summer food

Serviceberries are also referred to as Juneberry or shadbush.

Eastern serviceberry can be found in swamps and moist woods in Wisconsin. The downy serviceberry grows in dry upland woods, while the smooth serviceberry prefers dry or moist upland woods. These small trees are known for their delicate white flowers and delicious fruit. Serviceberry bears fruit in late June, making



it one of the earliest summer berries. Several native varieties provide a good selection for landowners. Robins and other thrushes, woodpeckers, eastern kingbirds, cedar waxwings, Baltimore orioles, scarlet tanagers, red-eyed vireos, cardinals and rose-breasted grosbeaks relish the sweet, purple fruit, as do fox and gray squirrels, eastern chipmunks and black bears. White-tailed deer and cottontail rabbits browse the leaves and twigs. The fruit tastes and can be used much like blueberries.

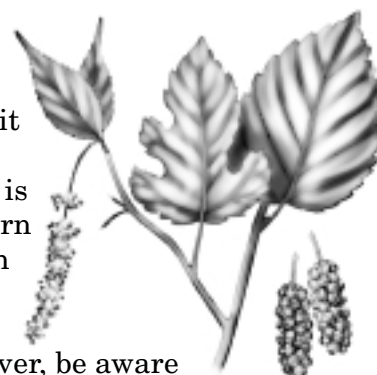
Red Mulberry

Morus rubra

Zone 5

Early summer fruit

The red mulberry is a native to southern Wisconsin and can be found in rich woods, especially floodplains. However, be aware that this wildlife tree's fruit can be messy and can stain sidewalks and cars in urban areas. The tree is particularly abundant in farmyards and even in cities and suburbs. An excellent fruit-bearer, the red mulberry is attractive to many kinds of wildlife. Songbirds from Baltimore orioles, robins, rose-breasted grosbeaks, blue jays and crows to brown thrashers, cedar waxwings, scarlet tanagers, indigo buntings, woodpeckers, vireos and finches quickly consume the large, juicy fruits that ripen so early in summer before most other berries. Raccoons and opossums also gorge on the plentiful harvest. Avoid the invasive alien white mulberry (*Morus alba*).



4. Nut-bearing Trees

Beech

Fagus grandifolia

Zone 3

Fall and winter food

Beech trees grow near Lake Michigan where the lake creates the cool, moist environment that these trees prefer. They grow best on good quality, rich soils. While beeches may be planted farther inland, hard winter freezes may kill them. This tree is beautiful in fall and its nuts provide excellent wildlife food for squirrels, chipmunks, bears, porcupines, grouse and many songbirds such as blue jays, chickadees, tufted titmice, blackbirds and woodpeckers. The nut crop is large about every 2 or 3 years.



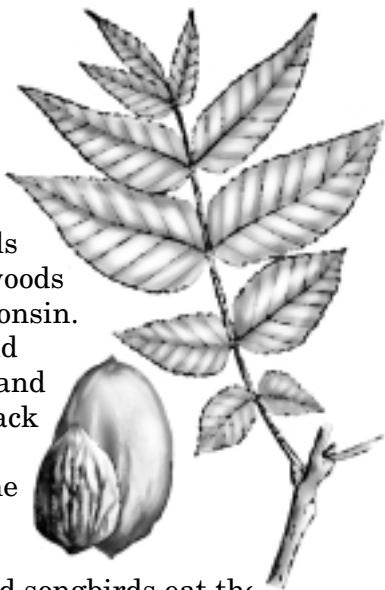
Butternut

Juglans cinerea

Zones 3 to 5

Fall food

This hardy tree grows on rich soils with other hardwoods in southern Wisconsin. Woodpeckers, wild turkeys, and fox and gray squirrels crack open the tough shells to get at the tasty butternuts inside. Wood ducks, finches and songbirds eat the buds. Keep a watchful eye on these trees, they are very susceptible to Butternut canker disease. *For more information on this disease or other forest diseases, contact DNR's forest pathology office at (608) 275-3273. An extensive search is underway to find butternut trees resistant to the canker disease, so please*



report the existence of **uncankered** mature trees to this same contact.

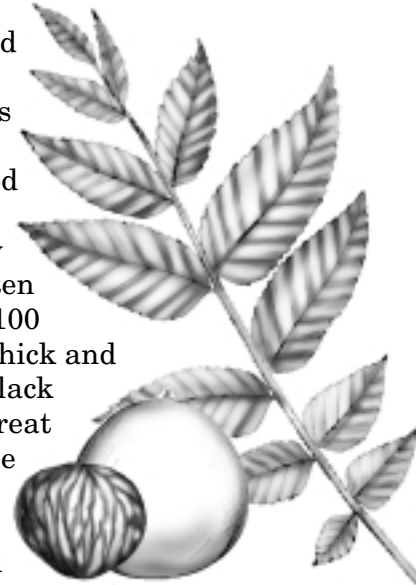
Black Walnut

Juglans nigra

Zones 4 to 5

Fall and winter food

Black walnut trees grow mainly in southern hardwood forests on deep, well-drained, silty loam soils, and often reach a height of 100 feet. Despite the thick and coarse bark, the black walnut makes a great cavity and den tree for a variety of animals. They're also highly valued for their wood. Fox and gray squirrels and red-bellied woodpeckers crack the very hard nuts of black walnut to get at the nutmeat inside. Squirrels bury the nuts in the fall and make use of them in early spring when the ground thaws. Avoid planting black walnuts near vegetable gardens; they secrete juglantic acid into the soil which inhibits plant growth, especially those plants in the tomato-potato family.



Shagbark Hickory*Carya ovata***Bitternut Hickory***Carya cordiformis*

Zone 5

Fall and early
winter food

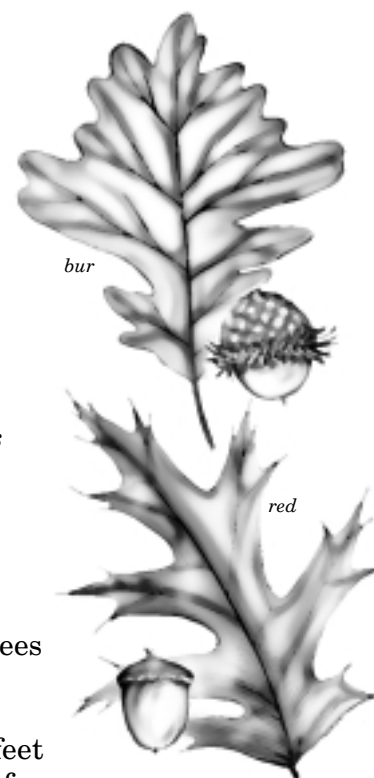
Shagbark hickory grows in southern Wisconsin on fertile soils. It is slow growing, long-lived and may reach a height of 100 feet. When its leaves turn deep yellow in fall, many people collect the tasty nuts. Bitternut hickory is found statewide in association with other hardwood trees, and reaches a maximum height of around 75 feet. The nuts of the bitternut hickory are just that—bitter. Shagbark and bitternut hickories produce large nuts that are a favorite of fox and gray squirrels, eastern chipmunks and red-bellied woodpeckers. Wood ducks, ring-necked pheasants, bobwhite quail, wild turkeys, red foxes and black bears also consume these small, hard-shelled nuts. Deer browse the leaves and twigs.

**White Oak***Quercus alba***Bur Oak***Quercus macrocarpa***Swamp White Oak***Quercus bicolor***Red Oak***Quercus rubra***Black Oak***Quercus velutina***Northern Pin Oak***Quercus ellipsoidalis*

Zones 4 to 5

Fall and winter food

Oaks are considered one of the most important wildlife trees in Wisconsin. These slow growers vary in height from 45–100 feet and have very long life spans. Though found statewide, red oak is more common on better soils. White oak and black oak grow in dry to average-moisture forest soils statewide. The bur oak is found in the average to dry soils of southern Wisconsin prairies and savannas. The less common northern pin oak is found mostly in northern Wisconsin forests on sandy soils. Swamp white oak is common in the floodplains along the Mississippi and Wisconsin rivers and their tributaries. Northern pin, black, and red oaks are susceptible to oak wilt if it is in the area. Larger oaks are difficult to transplant, so your best bet is to plant them as acorns or young seedlings. Protect the seedlings from browsing rabbits and deer. All oaks provide excellent wildlife benefits. Grouse, wood ducks, quail, wild turkeys, blue jays, white-breasted nuthatches, thrushes, rufous-sided towhees, brown thrashers, red-headed and red-bellied woodpeckers, yellow-shafted flickers, grackles, black bears, raccoons, gray, fox, flying and red squirrels, deer, eastern chipmunks, white-footed mice and many other animals feast on acorns each fall. Oak trees also make good den trees for cavity-dwelling birds and mammals.



5. Other Deciduous Trees

Green Ash

Fraxinus pennsylvanica

White Ash

Fraxinus americana

Black Ash

Fraxinus nigra

Zones 3 to 4

Fall and winter food



Ashes are fast-growing, moderately shade-tolerant trees found in hardwood stands statewide.

Growing up to 90 feet at maturity, they make great shade trees, especially on rich, moist soils. Plant black ash in floodplains in low, swampy sites; white ash in upland areas; green ash in either place. If you're planting green or white ash, avoid all cultivars.

Interestingly, ashes are either male or female trees and only the females produce seeds. It is difficult to tell the males from females when the trees are seedlings. Ash seeds are a preferred food of pine grosbeaks in winter; flocks alight on trees and strip the seed-wing off to get at the kernel inside. Ashes provide a supplementary source of nutrition for red foxes, snowshoe hares and opossums.

Beavers and deer browse on tender twigs and stems. Porcupines will eat the bark.

Big-Toothed Aspen

Populus

grandidentata

Quaking Aspen

Populus tremuloides

Zones 1 to 4

Winter and spring food



Quaking and big-toothed aspen grow rapidly on average to dry soils statewide, though they are more common in the north. Aspen, also called poplar or popple, grows up to 60 feet and reaches maturity at 50 years, after which it rapidly declines and can make a good cavity

tree long before other hardwood trees. Avoid planting the alien weedy white or silver poplar (*Populus alba*) and the disease-prone Lombardy poplar (*Populus nigra italica*). Aspen is the favorite food of many animals, especially deer, grouse and beavers. Prairie chickens, sharp-tailed and ruffed grouse and northern finches feast on the resinous buds and catkins. White-tailed deer, snowshoe hares, porcupines and beavers browse on leaves and young stems. To regenerate aspen, clearcut an existing aspen stand—the trees are shade intolerant and regenerate very well by root sprouts. Aspen are short-lived and their soft, punky wood is used by woodpeckers and chickadees for nest cavities. The trunks and branches of aspen are important for beaver when building their dams and lodges. Do not plant aspen near prairies or savanna areas; the trees will spread and out-compete prairie vegetation. Excessive spread of aspen is best controlled by girdling.

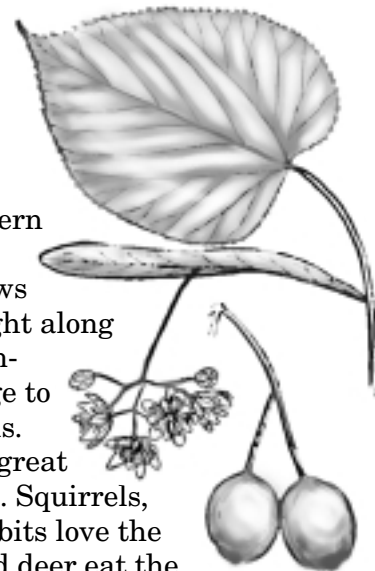
Basswood

Tilia americana

Zones 3 to 5

Summer food

Basswood is a component of northern and southern hardwood stands. It grows up to 80 feet in height along well-drained bottomlands and in average to moist woodland soils. Basswood makes a great den tree for wildlife. Squirrels, chipmunks and rabbits love the nutlets. Rabbits and deer eat the leaves and tender twigs.



Yellow Birch*Betula alleghaniensis***Paper Birch***Betula papyrifera***River Birch***Betula nigra*

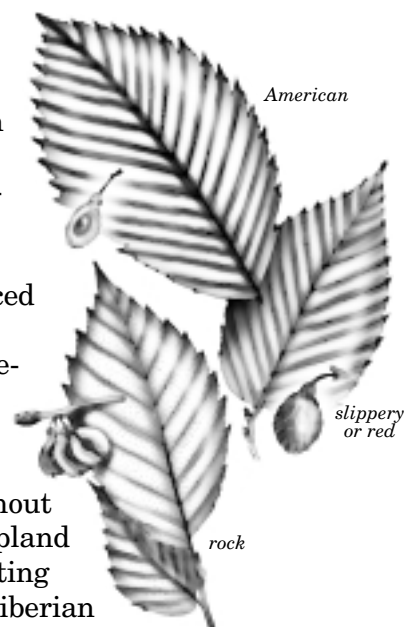
Zones 3 to 4

Fall and winter food

Yellow birch, which grows on moist soil types in northern Wisconsin, reaches heights up to 85 feet. Paper birch, found statewide on better quality sand and gravel soils in association with pine and aspen, grows to 65–70 feet in height. Paper birch is planted widely for its attractive papery white bark, but it is susceptible to numerous diseases and such insects as the bronze birch borer. River birch, with its bronze papery bark, grows along the floodplains of the Mississippi and Wisconsin rivers and their tributaries. All birches provide good browse for white-tailed deer and moose. The shreddy bark provides nest material for vireos, warblers and tanagers. Ruffed and sharp-tailed grouse feed on the catkins, buds and seeds, while the pine siskin and common redpoll consume the seeds. Beavers, snowshoe hares and porcupines prefer to eat leaves and stems. Chickadees, titmice and several woodpeckers use dead or dying birch for nesting cavities.



American elm is found statewide in rich moist soils, especially in floodplains, but Dutch Elm disease has significantly reduced its numbers. New varieties of disease-resistant elms have been developed. Rock elm is also found throughout the state in rich upland woods. Avoid planting the alien, weedy Siberian elm (*Ulmus pumila*) and Chinese elm (*Ulmus parvifolia*). Elm buds and winged seeds are used by various songbirds, gamebirds and squirrels, especially since the seeds ripen early in spring, long before other seeds are available. Wild turkeys, ring-necked pheasants, bobwhite quail, sharp-tailed grouse, prairie chickens, wood ducks, and songbirds such as black-capped chickadees and purple finches favor the seeds and buds. Gray and fox squirrels eat the swollen buds in early spring. Beavers and cottontail rabbits consume the bark off of tender twigs. Baltimore orioles often select elms from which to weave their pendulous nests.

**American Elm***Ulmus americana***Slippery (Red) Elm***Ulmus rubra***Rock Elm***Ulmus thomasi*

Zone 3

Late winter and early spring food

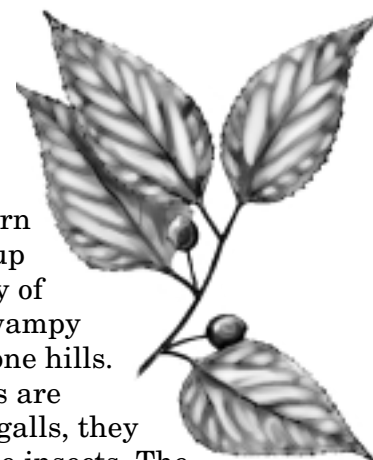
American and rock elm trees can reach 100 feet in height, while slippery elms generally only reach a height of 70 feet. Slippery elm is found statewide along streambanks and fertile hillsides, though it is rare in the north.

Hackberry*Celtis occidentalis*

Zone 5

Fall and winter food

This native of southern Wisconsin can grow up to 75 feet on a variety of soils ranging from swampy floodplains to limestone hills. Although hackberries are susceptible to insect galls, they are not harmed by the insects. The hackberry fruit is a winter food source for cedar waxwings, yellow-bellied sapsuckers, brown thrashers, robins, finches and thrushes. Gray foxes, opossums and flying squirrels also eat the fruits.

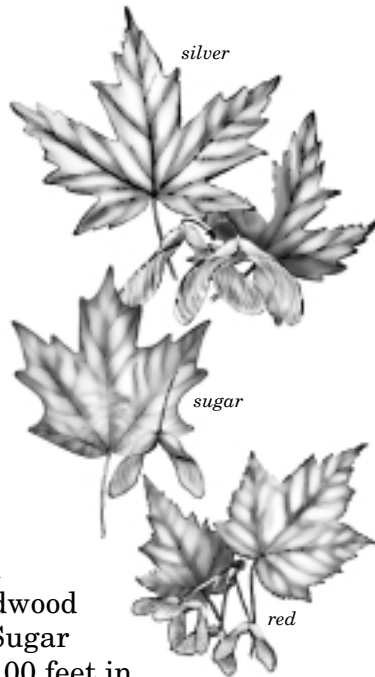


Sugar Maple*Acer saccharum***Red Maple***Acer rubrum***Silver Maple***Acer saccharinum*

Zones 3 to 4

Spring and fall
food

Sugar and red maples, noted for their stunning fall foliage and cooling shade, are common components of hardwood stands statewide. Sugar maple grows over 100 feet in height on fertile soils. Red maple, reaching up to 65 feet tall, can be found not only on fairly infertile, dry hillsides but also in low wet forests. Fast-growing, weak-wooded silver maples are found growing in floodplains and other moist soils in Wisconsin. They reach a maximum of 100 feet in height. Avoid planting the invasive, non-native Norway maple (*Acer platanoides*) and the alien Amur maple (*Acer ginnala*) and all cultivars. Sugar maple, also known as "hard maple," produces its winged "helicopter" seeds in summer and fall. Silver and red maple, referred to as "soft maples," bear their seeds in spring and early summer. Evening grosbeaks, pine grosbeaks, purple finches and red-breasted nuthatches eat the seeds, buds and flowers of the maple. Porcupines gnaw on the bark, while red, gray and fox squirrels and eastern chipmunks store and eat the winged seeds. Prairie warblers nest in 3–6 foot tall red maples. White-tailed deer browse heavily on twigs and leaves. Maples also make great, long-lived cavity trees.

**Boxelder***Acer negundo*

Zone 3 to 5

Summer food

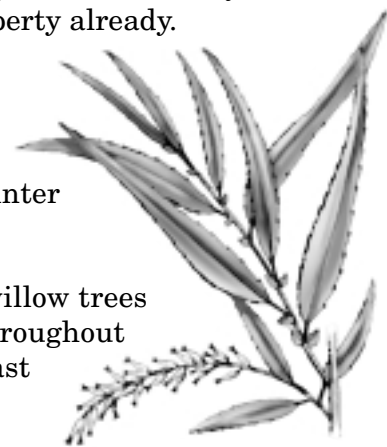
You'll find boxelder growing up to 50 feet high along fencerows and old farmsteads, primarily in southern Wisconsin's prairie savanna region as well as along floodplains. It is an ungainly tree with brittle branches. Female trees produce huge seed crops that mature in late summer and persist through winter. Evening grosbeaks, finches and other songbirds eat the seeds, buds and flowers of the boxelder. Deer and squirrels browse on its leaves. These trees also attract boxelder beetles that will often seek out the warmth in your house come fall; however, they are not harmful to the trees or your home. Boxelder's fast-growing, weak wood frequently forms cavities that make good dens for flying squirrels, gray and fox squirrels, raccoons and woodpeckers. Although boxelder has some good wildlife attracting qualities, we don't recommend planting this weedy, invasive tree if you don't have it on your property already.

**Willow***Salix* species

Zones 3 to 5

Summer browse–winter
food

Many varieties of willow trees and shrubs grow throughout Wisconsin. These fast growers are often planted near water where they range in height from shrubs to tall trees. Most have very weak wood. The buds and twigs are eaten by grouse and deer, while grosbeaks eat just the buds. Beavers and snowshoe hares nibble on the bark, buds and twigs. Be aware that the familiar weeping willow (*Salix babylonica*) is not native to Wisconsin.



6. Evergreens

Balsam Fir

Abies balsamea

Zone 3

Fall and winter food

A tree of northern forests, balsam fir prefers cool, moist, shady places out of reach of strong winds. Its soft needles and symmetrical shape make it a popular Christmas tree choice.

Mature trees reach 60 feet and are very long-lived, though they are susceptible to spruce bud worm and balsam woody aphid. Balsam fir stands make good cover for many birds and small mammals. Seeds are nibbled by the black-capped chickadees, red-breasted nuthatches, blue jays and red crossbills. Seeds, bark and wood are gnawed by red squirrels, voles, mice, snowshoe hares and eastern chipmunks. White-tailed deer, moose and spruce grouse also browse on the twigs of balsam fir.



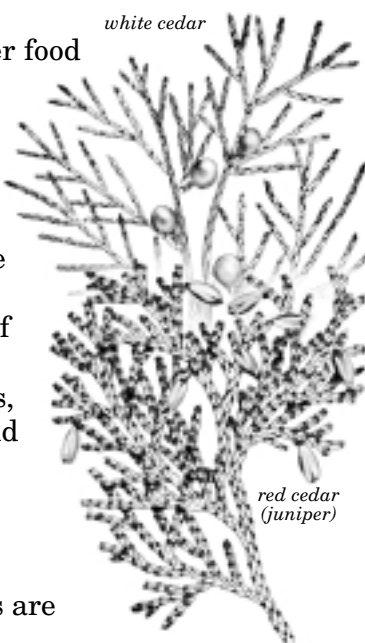
Northern White Cedar or "Arbor Vitae"

Thuja occidentalis

Zone 3

Fall and early winter food

A popular deer food, white cedar grows in northern Wisconsin swamps where it forms dense stands. This tree is rare in other areas of the state unless planted. Pine siskins, common redpolls, and red squirrels eat the winged seeds of this long-lived tree that grows up to 60 feet. White cedar swamps are



critical overwinter habitat for deer in northern Wisconsin. Because white cedar is a favorite browse of deer, these mammals are preventing natural regeneration in many areas.

Eastern Red Cedar

Juniperus virginiana

Zone 4

Fall, winter and spring food

Red cedar grows on dry, gravelly soils and rocky ledges in southwestern Wisconsin. It is also common in abandoned farm fields, fence-rows and along country roadsides. These evergreens reach up to 60 feet in height, forming dense cedar glades. Red cedar provides cover for the robin, chipping sparrow, junco and a variety of warblers. Cedar waxwings, evening and pine grosbeaks, purple finches, eastern chipmunks and white-footed mice prefer the bluish-black, berry-like fruit. Deer will eat twigs and leaves of red cedar. If planted as an ornamental, be aware that red cedar is an alternate host for cedar rust, which damages crabapple trees. Many ornamental varieties of cedar exist and should be avoided. Be aware that cedars can shade out prairie vegetation and any ground flora in yards, and will spread rapidly. They should be aggressively controlled in native prairie areas by cutting.

Hemlock

Tsuga canadensis

Zone 4

Fall and winter food

A stately, tall tree, the hemlock occurs in the northern forests of Wisconsin. It prefers cool, moist, heavily-shaded less-disturbed forests with rich soils. Hemlock can reproduce under the shade of evergreen and hardwood forests, and at maturity can reach a height of 100 feet. Hemlock is a highly valued wildlife food. Deer prefer hemlock and will heavily



browse the branches and tips, seriously limiting the trees' growth and reproduction, especially of those trees located near deer wintering yards. Dense branches provide cover for ruffed grouse, white-tailed deer and warblers such as black-throated green warbler and blackburnian warbler. The slate-colored (dark-eyed) junco, goshawk, raven and other wildlife of northern Wisconsin find refuge amongst its boughs. Pine siskins, crossbills and boreal chickadees eat the seeds, while porcupines enjoy the bark, twigs and seeds.

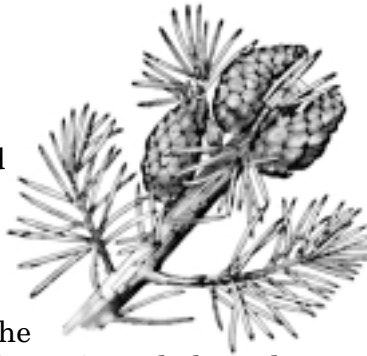
Jack Pine

Pinus banksiana

Zones 3 to 5

Fall and winter food

This sun-loving conifer can be found growing on the sandy soils of the northern half of Wisconsin and along the Wisconsin River in the south. It can reach 70 feet in height at maturity. It requires fire to release seeds from the tightly closed cones. Jack pine makes great cover for songbirds, deer, rabbits and small mammals. The red squirrel, pine siskin and purple finch eat the seeds once released by fire.



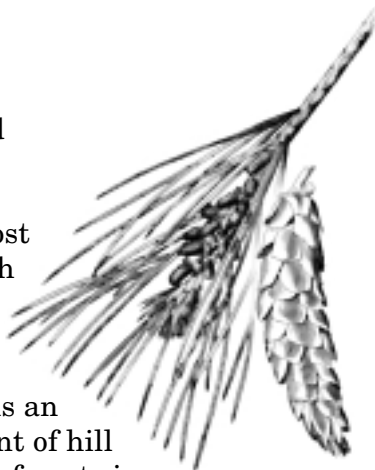
White Pine

Pinus strobus

Zones 3 to 5

Fall and winter food

White pine grows statewide, but is most common in the north where majestic individuals can reach 150 feet in height. White pine is an important component of hill and rocky bluff pine forests in south central and southwest Wisconsin. It prefers fertile, well-drained soils, but can tolerate sandy soils. This fast-growing conifer is often planted as an ornamental



near houses, as well as planted in shelter-belts. Young pine stands provide good thermal cover during winter for deer and birds. Seeds are eaten by red squirrels, mice, chickadees, red-breasted nuthatches, woodpeckers, grosbeaks, pine warblers, brown creepers, pine siskins and crossbills. Deer and spruce grouse nibble the needles. Beavers and snowshoe hares consume the bark. Large white pines provide roosts for wild turkeys and ruffed grouse, and nesting sites for ospreys and eagles.

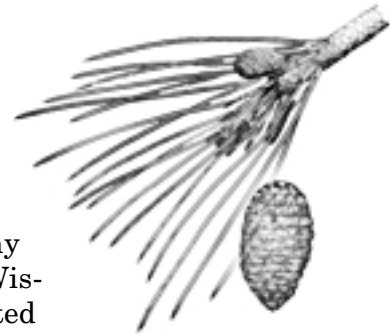
Red Pine

Pinus resinosa

Zones 3 to 5

Fall and winter food

Red pine grows in pure stands in many parts of northern Wisconsin and in isolated stands as far south as Dane County. These conifers occasionally reach 120 feet in height, but are generally only 90 feet tall. Because of its general freedom from disease and insect attacks, red pine is frequently planted in pine plantations. Such plantations have little value to wildlife because of a lack of understory growth. Nevertheless, as a small conifer, these trees can provide thermal shelter to wildlife in winter. Seeds are eaten by red squirrels, mice, chickadees, red-breasted nuthatches, woodpeckers, grosbeaks, pine warblers, brown creepers, pine siskins and crossbills. Ospreys and eagles nest in large red pines.



White Spruce*Picea glauca***Black Spruce***Picea mariana*

Zone 3

Fall and winter food

White spruce grows up to 80 feet high on moist well-drained soils in northern forests. It can also be found in mixed conifer-hardwood stands and balsam-tamarack swamps. It is an attractive evergreen, planted ornamentally statewide. This spruce is also planted for shelterbelts and plantations.

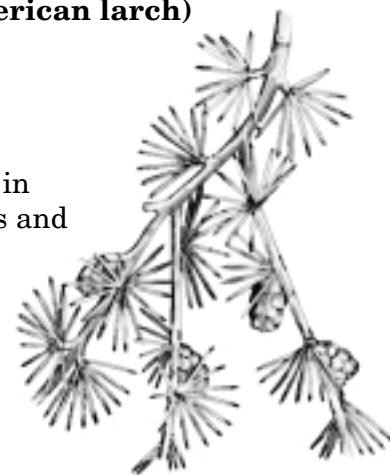
Black spruce grows only in wet northern forests, including bogs, and reaches up to 60 feet tall. It is often associated with tamarack, balsam fir and white spruce. Both spruces have dense branches, which they retain low to the ground. This provides some of the best winter cover for songbirds and rabbits, and nesting cover for songbirds in spring. Woodpeckers, chickadees, red-breasted nuthatches, grosbeaks, finches and crossbills glean the winged seed from the cones. Porcupines browse on twigs and bark. Woodpeckers, thrushes, kinglets, warblers and finches nest amidst the boughs. Spruce grouse and snowshoe hares feed heavily on the needles. As a last resort in hard winters, deer will browse on spruce twigs and needles.

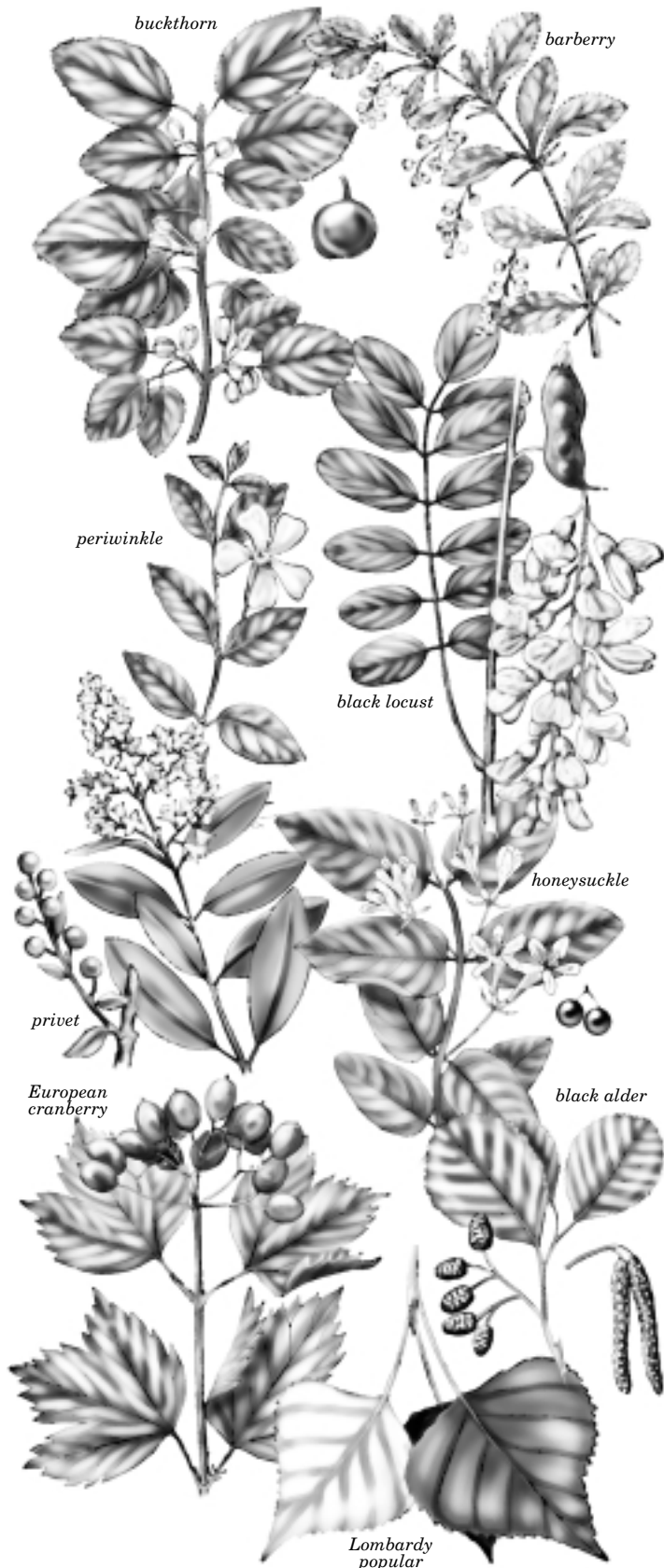
**Tamarack (American larch)***Larix laricina*

Zone 3 to 5

Fall food

Tamarack grows in northern swamps and in scattered southern lowlands that have wet soils. It will not do well if planted on upland sites. It is Wisconsin's only conifer that sheds its needles each fall, after the needles turn a bright golden color that stands out in stark contrast to neighboring spruces. Songbirds eat the seeds of the tamarack. This tree will not survive in upland areas.





Plants to Avoid

The following plants and their cultivars have the potential to invade wild areas and out-compete native species, degrading habitats and causing extensive ecological damage.

Trees

common buckthorn (*Rhamnus cathartica*)
 glossy/columnar buckthorn (*Rhamnus frangula*)
 European Mountain Ash (*Sorbus aucuparia*)
 Amur maple (*Acer ginnala*)
 Norway maple (*Acer platanoides*)
 black locust (*Robinia pseudoacacia*)
 Chinese elm (*Ulmus parviflora*)
 Siberian elm (*Ulmus pumila*)
 European or black alder (*Alnus glutinosa*)
 white poplar (*Populus alba*)
 Lombardy poplar (*Populus nigra italica*)

Shrubs

all bush honeysuckles (*Lonicera tatarica*,
L. x bella, *L. morrowii*, *L. aackii*)
 Japanese barberry (*Berberis thunbergii*)
 European barberry (*Berberis vulgaris*)
 multiflora rose (*Rosa multiflora*)
 European cranberry bush (*Viburnum opulus*)
 common privet (*Ligustrum vulgare*)
 burning bush/winged euonymus (*Euonymus alatus*)
 autumn olive (*Elaeagnus umbellata*)
 Russian olive (*Elaeagnus angustifolia*)
 smooth sumac (*Rhus glabra*)

Vines

round-leaved bittersweet (*Celastrus orbiculatus*)
 wintercreeper (*Euonymus fortunei*)
 Japanese honeysuckle (*Lonicera japonica*)
 porcelain berry (*Ampelopsis brevipedunculata*)
 periwinkle (*Vinca minor*)
 English ivy (*Hedera helix*)