



Landscaping for Wildlife: Trees, Shrubs, and Vines

Landscaping for wildlife can restore critically needed habitat and beautify your yard at the same time. Many excellent native trees, shrubs, and vines offer four seasons' interest with their fragrant flowers, eye-catching fruit, brilliant fall color, and sculptural forms in winter. The same plants can attract a diversity of wildlife with the food, cover, and nest sites they supply. This fact sheet presents guidelines for selecting woody plants (trees, shrubs, and vines) and designing your landscape with the goal of providing wildlife habitat.

Selecting Plants

■ Select plants that provide a year-round source of food.

Many woody plants produce soft mast (fruit) or hard mast (nuts) that provides food for both birds and mammals. When selecting plants, choose a combination that will supply food throughout the year. For example, blackberries and raspberries provide fruit in summer and are consumed by catbirds, chipmunks, rabbits, and other wildlife present in your yard at that time. Dogwoods, mountain ash, and spicebush produce fruit in late summer and early fall and are an important food source for fall migrants.

Make sure to include some plants that retain their fruit through winter into early spring, the time of greatest food scarcity. These plants generally produce fruit that is not highly preferred, so the fruit is not consumed during the fall when other foods are abundant. Examples are hawthorn, crabapple, holly, highbush cranberry, and staghorn sumac. They are excellent plants for wildlife because they offer emergency winter food, and some, such as sumac with its red fruiting spikes, can add structural interest to a bleak winter

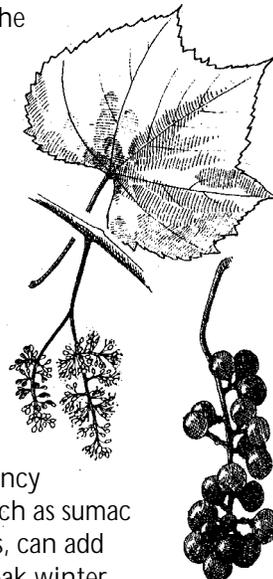
landscape. The table on pages 3–4 lists the fruiting period for many trees, shrubs, and vines.

Oaks, hickories, beech, and other trees that produce nuts provide food for mammals like squirrels, chipmunks, and deer, and for birds such as bluejays. These are often large trees, which also offer shade from the summer sun and nest sites for many birds. Many other plants, such as grapevines, provide multiple benefits including an abundant food supply, dense cover, and nest sites.

Although we often associate butterflies with wildflowers instead of woody plants, the larval caterpillars feed on a number of woody species. For example, tiger swallowtail caterpillars feed on the leaves of cherry, willow, sassafras, trees; and the spicebush swallowtail, true to its name, feeds on spicebush leaves. By providing a food source for the caterpillars, you will attract more butterflies to your flowers.

■ Select plants that provide cover and nest sites.

Cover is a key ingredient in the success of your wildlife garden. In winter, wildlife species need shelter from the cold and wind. Evergreen trees and shrubs make some of the



Wild grape

best shelters, especially those which keep their branches close to the ground. These evergreens give better insulation than plants without branches on the lower part of the trunk. They provide shelter for many types of wildlife, particularly if they are located on the northwest side of your lot where they block cold winds.

Evergreen trees, such as pines and hemlocks, and evergreen shrubs, like rhododendron and holly, make safe, year-round retreats where birds and small mammals can hide from predators and be protected from inclement weather. Deciduous shrubs with dense branching habits also make good cover. Examples are raspberries and blackberries; lilacs (which readily sprout suckers); red-osier, gray, and silky dogwoods; and elderberries. Many of these shrubs also produce berries that wildlife readily eat. Diverse types and sizes of cover plants are useful to include in your landscape plan, because individual species of wildlife have different preferences in the amount and location of cover.

Fallen trees provide cover for salamanders and small mammals. Brush piles and rock piles are sources of cover, nest sites, and den sites for many wildlife species. A trailing ground cover, such as a ground rose, or a vine such as Virginia creeper can gracefully camouflage your brush or rock pile, blending it with other landscape features while providing an additional source of food and cover.

Nesting places are vitally important for wildlife. Trees and shrubs that offer cover from predators and inclement weather also serve as sites for birds to build nests and raise their young. Tree cavities in both living and dead trees provide nest sites for a variety of species including woodpeckers, nuthatches, chickadees, flying squirrels, and gray squirrels. When nest cavities are scarce, cavity nesting species will often use bird houses and nest boxes. Consequently, if



Red squirrel

cavities are in short supply, you can enhance the habitat for cavity nesters by adding nest boxes.

Designing Your Landscape

As you design your landscape, let nature be your guide and try to copy what you see in nature. Plant trees and shrubs in groups instead of as isolated individuals. Plant corridors to connect islands of trees and shrubs with other natural areas. Whenever possible, plant combinations of tall trees, smaller trees, shrubs, and herbaceous plants together. This is important because different types of wildlife will find food and cover at varying heights.

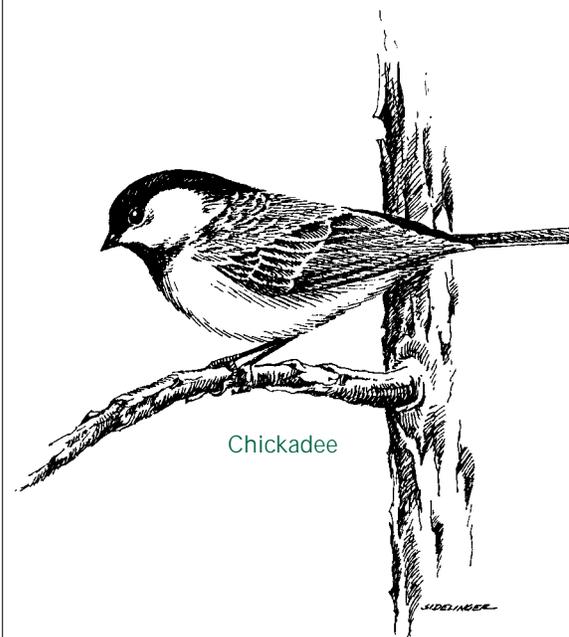
■ *Protect what is there during building.*

If you are building a new home, there are probably trees, shrubs, and vines already established on the property. Before building, you should determine which of these plants you want to

protect during the lot-clearing process. Talk with your builder about the importance of preserving an assortment of different plants for wild species, including dead trees that won't be a safety hazard. Either rope off areas of your lot or mark plants you wish to be spared. Include plants that can give year-round cover, food, and shelter.

Trees are often damaged during building. Bulldozers can damage tree roots while compacting the soil, making it impossible for oxygen to reach the root cells. The result is plant injury or death. Piling soil more than three inches above the original ground level around the trunk can also block the oxygen supply. In addition to protecting trees from root damage, you will need to shield trees from bark injuries. For more information on protecting trees during building, see *A Guide to Preserving Trees in Development Projects*, available from your county extension office.

(text continues on page 5)



Chickadee

Landscaping trees, shrubs, and vines with value for wildlife

NAME	HEIGHT (FT)	WILDLIFE VALUE	EXPOSURE	FRUIT/SEEDS AVAILABLE
Tall trees				
American beech (<i>Fagus grandifolia</i>)	70	Excellent food source for many birds and mammals; nest sites	PS-S	Fall to winter
Balsam fir (<i>Abies balsamea</i>)	60	Cover; nest sites for robins, mourning doves, and other birds; seeds consumed by finches	FS-S	Late spring to fall
Birch (<i>Betula spp.</i>)	40-70	Catkins eaten by birds, foliage by browsers	FS-PS	Early summer to fall
Black cherry (<i>Prunus serotina</i>)	60	Food for a variety of species, including birds, mammals, and larval butterflies (leaves)	FS-PS	Summer to fall
Butternut (<i>Juglans cinerea</i>)	100	Cover, food, and nuts	FS-PS	Fall to winter
Eastern hemlock (<i>Tsuga canadensis</i>)	70	Nest sites and cover; food for birds and small mammals	FS-S	Fall to winter
Eastern red cedar (<i>Juniperus virginiana</i>)	40	Cover, food, and nest sites	FS-PS	Fall to spring
Eastern white pine (<i>Pinus strobus</i>)	100	Cover, food, and nest sites	FS-PS	Fall to winter
Hackberry (<i>Celtis occidentalis</i>)	30-60	Fruit attracts many species, including cedar waxwings, flickers, cardinals, and robins	FS-PS	Fall to spring
Hickories (<i>Carya spp.</i>)	80	Nuts, nest sites	FS-PS	Fall to winter
Oaks (<i>Quercus spp.</i>)	100	Important food source for both birds and mammals; nest sites	FS	Late summer to fall
Sour-gum, blackgum (<i>Nyssa sylvatica</i>)	100	Fruit attracts many mammal and bird species	FS-S	Late summer to fall
Yellow birch (<i>Betula alleghaniensis</i>)	32-72	Nest sites and seeds, buds; seeds eaten by goldfinches, juncos, chickadees	PS-S	Late summer to fall
Small trees				
American crabapple (<i>Malus glaucescens</i>)	30	Fruit relished by many songbirds and mammals; butterflies, bees seek flower nectar	FS	Fall to spring
American holly (<i>Ilex opaca</i>)	30	Cover, nest sites; fruit draws songbirds, ruffed grouse, deer	FS-PS	Late summer to spring
American mountain ash (<i>Sorbus americana</i>)	40	Fruit attracts many birds, including cedar waxwings, eastern bluebirds, gray catbirds, and brown thrashers	FS-PS	Late summer to fall
Chokecherry (<i>Prunus virginiana</i>)	30	Eastern bluebirds, grouse, mammals consume fruit; butterfly larvae feed on foliage	FS-S	Late summer
Flowering dogwood (<i>Cornus florida</i>)	40	Fruit consumed by many birds including cedar waxwings, catbirds, and robins; currently infected by dogwood anthracnose, so not recommended for planting	FS-PS	Fall
Hawthorn (<i>Crataegus spp.</i>)	25	Good nest sites for birds; fruit for cedar waxwings, fox sparrows, small mammals, deer	FS-PS	Fall to spring
Persimmon (<i>Diospyros virginiana</i>)	50	Fruit consumed by many birds and mammals	FS-PS	Late summer to winter
Red mulberry (<i>Morus rubra</i>)	60	Many birds and mammals attracted to fruit	FS-PS	Summer
Serviceberry (<i>Amelanchier spp.</i>)	30	Robins, cedar waxwings, rose-breasted grosbeaks, and other birds and mammals consume fruit	All	Early summer
Shrubs				
American elderberry (<i>Sambucus canadensis</i>)	13	Fruit, cover, and nest sites for many birds, including robins and catbirds	All	Late summer
Blackberry, raspberry (<i>Rubus spp.</i>)	6	Berries provide abundant summer food; nest sites for birds, cover for small mammals	FS-PS	Early to late summer

continued

Landscaping trees, shrubs, and vines with value for wildlife (*continued*)

NAME	HEIGHT (FT)	WILDLIFE VALUE	EXPOSURE	FRUIT/SEEDS AVAILABLE
Shrubs, continued				
Butterfly bush (<i>Buddleia spp.</i>)	Up to 15	Flowers attract hummingbirds, butterflies	FS	Summer to fall
Common spicebush (<i>Lindera benzoin</i>)	12	Veery, wood thrush, and other fall migrants feed on the high-fat fruits; spicebush swallowtail feeds on leaves	FS-PS	Late summer
Coralberry (<i>Symphoricarpos orbiculatus</i>)	6	Hummingbirds attracted to nectar; songbirds and gamebirds enjoy cover, fruit, nest sites	FS-PS	Fall to spring
Dogwoods (<i>Cornus spp.</i>)	Up to 8	Many varieties of dogwoods are attractive landscaping shrubs and provide fruit and cover for wildlife	S-PS	Summer to early fall
Highbush blueberry (<i>Vaccinium corymbosum</i>)	12	Eaten by a variety of species, including orchard orioles, eastern bluebirds, grouse, black bear, and mice	FS-PS	Summer to fall
Highbush cranberry (<i>Viburnum trilobum</i>)	17	Red fruit often lasts through winter; consumed by ruffed grouse, wild turkey, brown thrasher	FS-PS	Fall to spring
Staghorn sumac (<i>Rhus typhina</i>)	15	Fruit persists through winter and is an important emergency food for a variety of birds in early spring	FS-PS	Summer to spring
Viburnums (<i>Viburnum spp.</i>)	10	Many varieties of viburnums are attractive landscaping shrubs and provide fruit and cover for wildlife, particularly in late summer and during fall migration	S-PS	Summer to early fall
Winterberry (<i>Ilex verticillata</i>)	10	Winter food source	PS-S	Late summer to winter
Vines				
American bittersweet (<i>Celastrus scandens</i>)	to 20	Fruit, cover, nest sites; important winter food source	FS-S	Fall to winter
Clematis (<i>Clematis virginiana</i>)	Climber	Abundant white flowers offer nectar for hummingbirds, bees, and other pollinators	FS-PS	Spring to summer
Trumpet honeysuckle (<i>Lonicera sempervirens</i>)	to 50	Nectar for butterflies, moths, hummingbirds; cover, fruit for birds and small mammals	FS-PS	Summer to fall
Trumpet vine (<i>Campsis radicans</i>)	Climber	Hummingbirds attracted to flowers	FS	Summer to fall
Virginia creeper (<i>Parthenocissus</i>)	30-50	Cover and fruit for birds and small mammals lasting through winter	S	Late summer to spring
Wild grape (<i>Vitis spp.</i>)	High climber	Cover, food, and nest sites for birds and small mammals	FS-PS	Late summer to fall

Exposure:

FS—full sun

PS—part sun

S—shade



Hawthorn



Dogwood

Questions to Ask When Planning, Selecting, and Planting

To avoid problems, there are questions you should ask nursery personnel when you select plants and develop your landscape plan.

■ *Will this plant produce fruit?*

You may be selecting a plant because of the value of its fruit for wildlife and be disappointed to discover it does not produce fruit. Many ornamental trees and shrubs have been bred to produce no fruit. For example, ornamental fruit trees, such as flowering cherry, flowering peach, or flowering plum, usually produce only showy flowers and no fruit.

■ *Will this fruit tree, nut tree, or small fruit shrub need cross-pollination with a plant of a different variety to yield a crop?*

Many apple trees need cross-pollination with a different apple variety to bear fruit. Most nut trees yield a crop only if a tree of the opposite sex is planted nearby. Holly, sumac, and spicebush require both sexes to set fruit. Thus it is best to ask about pollination requirements when you purchase your plant.

■ *Will this plant be hardy in my area?*

Winter climate zones in this state are zone 5 (average minimum temperature -20° to -10° F) and zone 6 (-10° to 0° F). Your area may include microclimates where temperatures may be colder or warmer than these zones. Your county extension office can tell you the temperature range for your area.

■ *How much moisture does my plant need?*

It's important to determine how much moisture a particular plant requires so that it will thrive where you plant it. If you establish a native plant in its preferred site, then watering and fertilizing beyond the first year may not be necessary. Mulch the area under the canopy to conserve water and maintain a consistent root temperature.

■ *What will the ultimate dimensions of this plant be? How much space will it need?*

It is good to site a plant where it can reach normal size without excessive pruning. Plants placed too close to buildings or driveways may not grow well or live long. Nursery personnel can tell you what the mature size will be.

■ *Which exposure is best for this plant (north, south, east, or west side of the house)?*

Some plants need a shady, cool location on the north side and do poorly in the warmth of a southern site. Others require full sun and protection from prevailing winds. Fruit and nut-bearing plants normally need full sun to produce a good yield. Most nurseries can tell you how much sun your plant will need. You can also observe the environment where the plant grows in the wild, or consult a native plant book for cultural information.

■ *What type of soil does this plant prefer? How alkaline or acidic should the soil pH be for this plant?*

Types of soil include loam, sandy, or clay soil. You can find out what soil type and pH your plant needs from the nursery where you bought the plant. You can determine the pH of your soil by submitting a sample to your county extension office for testing.

■ *How should I plant and care for my new plant?*

Upon request, most nurseries will supply information about how to plant, water, and nurture your new plant so that it will thrive.

For Further Information

For additional information and sources of assistance, see:

Pennsylvania Wildlife No. 1, Wildlife-Habitat Relationships

Pennsylvania Wildlife No. 2, Attracting Wildlife: Sources of Assistance

Pennsylvania Wildlife No. 3, Managing Habitat for Eastern Bluebirds

Pennsylvania Wildlife No. 5, Meadows and Prairies: Wildlife-Friendly Alternatives to Lawns

Pennsylvania Wildlife No. 6, Attracting Hummingbirds

Pennsylvania Wildlife No. 8, Gardening for Butterflies

All are available from your county extension office.

Authors

Ursula Sherrill, wildlife extension assistant, and Margaret C. Brittingham, associate professor of wildlife resources

Acknowledgments

Partial funding for this fact sheet was provided by Pennsylvania's Wild Resource Conservation Fund.

Illustrations

John Sidelinger: squirrel, chickadee
Rae Chambers: wild grape, dogwood, hawthorn

PENNSTATE



COLLEGE OF AGRICULTURAL SCIENCES
AGRICULTURAL RESEARCH AND COOPERATIVE EXTENSION

Visit Penn State's College of Agricultural Sciences on the Web: <http://www.cas.psu.edu>

Penn State College of Agricultural Sciences research, extension, and resident education programs are funded in part by Pennsylvania counties, the Commonwealth of Pennsylvania, and the U.S. Department of Agriculture.

This publication is available from the Publications Distribution Center, The Pennsylvania State University, 112 Agricultural Administration Building, University Park, PA 16802. For information telephone (814) 865-6713.

Where trade names appear, no discrimination is intended, and no endorsement by Penn State Cooperative Extension is implied.

Issued in furtherance of Cooperative Extension Work, Acts of Congress May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture and the Pennsylvania Legislature. T. R. Alter, Director of Cooperative Extension, The Pennsylvania State University.

This publication is available in alternative media on request.

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Discrimination or harassment against faculty, staff, or students will not be tolerated at The Pennsylvania State University. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Director, The Pennsylvania State University, 201 Willard Building, University Park, PA 16802-2801, Tel 814-865-4700/V, 814-863-1150/TTY.

© The Pennsylvania State University 2001

Rev5M2/01cp