Eastern white pine

| KEY | |
|------|-------------|
| Soil | |
| W | Wet |
| М | Moist |
| D | Dry |
| Sun | |
| FS | Full sun |
| PS | Partial sun |
| Sh | Shade |

Plants with High Wildlife Value (see also "Butterfly and Hummingbird Plants", page 75)

| Common Name | Scientific name | Sun | Soil | Height in feet |
|--------------------------|-------------------------|--------|------|----------------|
| Trees, large | | | | |
| Red maple | Acer rubrum | All | М | 40–60 |
| Sugar maple | Acer saccharum | PS, Sh | М | 60–75 |
| American beech | Fagus grandifolia | All | М | 50–70 |
| Eastern white pine | Pinus strobes | All | M-D | 50–80 |
| White oak | Quercus alba | All | M-D | 50-100 |
| Chestnut oak | Quercus montana | PS, Sh | D | 40–75 |
| Pin oak | Quercus palustris | FS, PS | All | 60–70 |
| Red oak | Quercus rubra | FS, PS | M-D | 60–80 |
| Eastern hemlock | Tsuga canadensis | All | М | 40–70 |
| Shrubs or small trees | | | | |
| Serviceberry | Amelanchier arboriea | All | M-D | 15–25 |
| Alternate-leaved dogwood | Cornus alternifolia | PS-Sh | M | 15–25 |
| Flowering dogwood | Cornus florida | PS-Sh | М | 10–30 |
| Winterberry (holly) | llex verticillata | All | W-M | 6-10 |
| Spicebush | Lindera benzoin | PS-Sh | W-M | 6-12 |
| Elderberry | Sambucus canadensis | All | W-M | 5–15 |
| Lowbush blueberry | Vaccinium angustifolium | FS-PS | M-D | I <u>-2</u> |
| Highbush blueberry | Vaccinium corymbosum | All | W-M | 6-12 |
| Arrowwood | Viburnum dentatum | All | W-M | 3–15 |

Plants for Lawn Conversion

| Common Name | Scientific Name |
|----------------------------------|-----------------------------|
| Meadow plants | |
| Big bluestem (grass) | Andropogon gerardii |
| Wild ginger | Asarum canadense |
| Butterfly-weed | Asclepias tuberosa |
| New England aster | Aster novae-angliae |
| Purple coneflower | Echinacea purpurea |
| Showy tick trefoil | Desmodium canadense |
| Ox eye sunflower | Heliopsis helianthoides |
| Blazing star (spiked gayfeather) | Liatris spicata |
| Wild bergamot | Monarda fistulosa |
| Foxglove beardtounge | Penstemon digitalis |
| Black-eyed Susan | Rudbeckia hirta |
| Little bluestem (grass) | Schizachyrium scoparium |
| Showy goldenrod | Solidago speciosa |
| Indian grass | Sorghastrum nutans |
| Groundcovers | |
| Pennsylvania sedge | Carex pennsylvanica |
| Partridge berry | Mitchella repens |
| Native pachysandra | Pachysandra procumbens |
| Mayapple | Podophyllum peltatum |
| Greek valerian | Polemonium reptan |
| Creeping phlox | Phlox stonifera |
| Virginia creeper | Parthenocissus quinquefolia |



One of the many goldenrod species that will "volunteer" in a garden and provide color and nectar late into the season.

TIP

To calculate how many gallons of rainwater runs off your roof each year, first figure out your roof's square footage, then multiply that number by 623. Next, divide the product by 1,000, and multiply the result by the number of annual inches of rainfall in your location. On average, the Philadelphia region receives 42 inches of rain annually (Source: NOAA).



New York ironweed

Plants for a Rain Garden

| Common name | Scientific name |
|-------------------------|---------------------------|
| Perennials | |
| Swamp milkweed | Asclepias incarnata |
| New England aster | Aster novae-angliae |
| Turtlehead | Chelone species |
| Boneset | Eupatorium perfoliatum |
| Joe-pye weed | Eupatorium fistulosum |
| Swamp sunflower | Helianthus augustifolius |
| Blue flag iris | Iris versicolor |
| Cardinal flower | Lobelia cardinalis |
| Virginia bluebells | Mertensia virginica |
| Allegheny monkey flower | Mimulus ringens |
| Beebalm | Monarda didyma |
| Cutleaf coneflower | Rudbeckia laciniata |
| New York ironweed | Vernonia noveboracensis |
| Trees and Shrubs | |
| Red maple | Acer rubrum |
| Buttonbush | Cephalanthus occidentalis |
| Sweet pepperbush | Clethra alnifolia |
| Red-osier dogwood | Cornus sericea |
| Winterberry | llex verticillata |
| Arrowwood | Vibumum dentatum |
| Witherod viburnum | Viburnum cassinoides |
| Grasses | |
| Lurid sedge | Carex Iurida |

TICK CHECK

Ticks are part of the natural environment, and they are likely to show up in your backyard habitat, whether or not you have deer on your property. The larval stage of a deer tick is no bigger than a poppy seed, so be on the lookout: vigilance is the best precaution. Tuck pants into socks, wear light-colored clothes when gardening, and perform frequent tick checks on yourself and others. Also, create clear paths through your habitat to allow for worryfree access and enjoyment.



here's no true deer-proof plant. In fact, hungry deer will eat just about anything. The list below is a selective representation of plants that have shown some resistance "in a particular place at a particular time" and have appeared on any number of "deer tolerant" plant lists for our region.

| Common Name | Scientific Name | | | | |
|-------------------------|-----------------------|--|--|--|--|
| HERBACEOUS PLANTS | | | | | |
| Nodding/wild onion | Allium cernuum | | | | |
| Big bluestem grass | Andropogon gerardii | | | | |
| Wild columbine | Aquilegia canadensis | | | | |
| Milkweeds | Asclepias species | | | | |
| Tall tickseed | Coreopsis tripteris | | | | |
| Bleeding heart | Dicentra eximia | | | | |
| Spotted (wood) geranium | Geranium maculatum | | | | |
| Blue flag iris | Iris versicolor | | | | |
| Twin leaf | Jeffersonia diphylla | | | | |
| Blazing star | Liatris spicata | | | | |
| Virginia bluebells | Mertensia virginica | | | | |
| Switch grass | Panicum virgatum | | | | |
| Wild blue (wood) phlox | Phlox divaricata | | | | |
| Creeping phlox | Phlox stolonifera | | | | |
| Mountain mint | Pycnanthemim muticum | | | | |
| Black-eyed Susan | Rudbeckia hirta | | | | |
| Goldenrods | Solidago species | | | | |
| Fern species | | | | | |
| TREES AND SHRUBS (WOO | DIES) | | | | |
| Maples | Acer species | | | | |
| Serviceberry | Amelanchier species | | | | |
| Beech | Fagus species | | | | |
| Spicebush | Lindera benzoin | | | | |
| Trumpet honeysuckle | Lonicera sempervirens | | | | |
| Bayberry | Myrica pensylvanica | | | | |
| Viburnums | Vibumum species | | | | |
| | | | | | |

Homemade Deer Deterrent

There are non-toxic deer deterrents on the market and many more quick remedies that often provide only a temporary respite from hungry deer. Wads of human hair, hanging bars of soap, and even fencing only work until the deer's hunger trumps the barriers. Here's a deterrent you can make at home that acts both as a area repellent (smell) and a contact repellent (taste). Exercise caution when preparing and applying this recipe.

Recipe

I-2 quarts water
3 whole eggs
I large clove garlic
Couple of tablespoons of chili power or hot pepper sauce
I tsp. shavings of deodorant soap

Liquefy ingredients in a blender, then mix with the I-2 quarts of water, strain, and place in plant sprayer. Spray on plants every couple of weeks and after rains. Keep excess in tightly closed jar. Offensive odor will develop and that's just what the deer hate.

Caution: This recipe contains red pepper and raw eggs...be careful to avoid contact with face and be sure to wash hands after handling. Keep out of reach of children.





Top to bottom: American Goldfinch, Downy Woodpecker, Song Sparrow Opposite page: Ruby-throated Hummingbird

| Key | |
|--------|----------------------------|
| Υ | Year round residents |
| \vee | Winter resident |
| S | Summer (breeding) resident |
| Μ | Migrants |
| * | Non-native species |
| Shaded | Common feeder birds |

The Common Birds of Southeastern Pennsylvania's woodlands, parks, and backyards

More than 300 species of birds can be seen in the Delaware Valley, many of which can be attracted to your yard with the addition of native plants, feeders, a water feature, and the elimination of turf grass and lawn pesticides. Native plants provide familiar cover and natural food in the form of seeds, nuts, and

| | 5 () | |
|---------------------------|--------------|----------|
| BIRD | Res/migrant | √ |
| Canada Goose | Y | |
| Mallard | Y | |
| Cooper's Hawk | Y | |
| Red-tailed Hawk | Y | |
| Wild Turkey | Υ | |
| Mourning Dove | Υ | |
| Rock Dove/Pigeon | Υ | |
| Eastern Screech-Owl | Υ | |
| Great Homed Owl | Υ | |
| Chimney Swift | M,S | |
| Ruby-throated Hummingbird | M,S | |
| Red-bellied Woodpecker | Y | |
| Downy Woodpecker | Y | |
| Northern Flicker | Y | |
| Eastern Phoebe | M,S | |
| Red-eyed Vireo | M,S | |
| Blue Jay | Y | |
| American Crow | Y | |
| Tree Swallow | M,S | |
| Barn Swallow | M,S | |
| Carolina Chickadee | Y | |
| Tufted Titmouse | Y | |
| White-breasted Nuthatch | Y | |
| Carolina Wren | Y | |
| House Wren | M,S | |
| Eastern Bluebird | Y | |
| Wood Thrush | M,S | |
| American Robin | Υ | |
| Gray Catbird | M,S | |
| | | |

fruits, and serve as a primary source of insects. Birds on this list that are likely to visit feeders will do so to supplement their diet of preferred natural foods. Specialized nectar or fruit feeders will attract birds such as Baltimore Orioles and Ruby-throated Hummingbirds.

| BIRD | Res/migrant | √ |
|------------------------------|-------------|----------|
| Northern Mockingbird | Y | |
| European Starling* | Υ | |
| Cedar Waxwing | Υ | |
| Yellow Warbler | M,S | |
| Yellow-rumped Warbler | M,W | |
| Black-throated Green Warbler | М | |
| Black-and-white Warbler | М | |
| American Redstart | М | |
| Ovenbird | M,S | |
| Common Yellowthroat | M,S | |
| Scarlet Tanager | M,S | |
| Eastern Towhee | M,S | |
| Chipping Sparrow | M,S | |
| White-throated Sparrow | M,W | |
| Song Sparrow | Υ | |
| Rose-breasted Grosbeak | M,S | |
| Indigo Bunting | M,S | |
| Dark-eyed Junco | M,W | |
| Northern Cardinal | Υ | |
| House Sparrow* | Υ | |
| Red-winged Blackbird | M,S | |
| Common Grackle | Υ | |
| Brown-headed Cowbird | Υ | |
| Baltimore Oriole | M,S | |
| House Finch | Y | |
| American Goldfinch | Y | |

Butterflies and Hummingbirds Our nectar-loving neighbors

More than 70 species of butterflies occur in southeastern Pennsylvania and many more species of moths. Butterflies have specific food and habitat needs; and while some occur within limited distribution, there are a number of species that will regularly visit backyards, urban parks, and public gardens.

A backyard with the right ingredients will attract butterflies. Whether a few plants are interspersed within an existing landscape or an entire butterfly garden is created, butterflies will, like magic, appear to feed. The ideal butterfly garden will include food plants and habitat for larvae (caterpillars) as well as nectar-producing plants. Willows,

legume species, and tulip poplars, as well as those listed below will serve as important host plants for caterpillars.

In addition, a shallow puddle surrounded by mud and placed in the open will provide valuable water and nutrients to butterflies.

Ruby-throated Hummingbirds can also be encouraged with a combination of plants and feeders. See the recipe on page 76 and hang the feeder near some key plants. Since both hummingbirds and butterflies favor many of the same plants, creating a dedicated, undisturbed plot of flowering plants that is free of pesticides is the best way to attract both.

Butterfly and Hummingbird Plants

| Common name | Scientific name | Bloom time | Bloom color | Butterfly | Hummer | Soil | Sun |
|------------------------|-----------------------|------------|--------------|-----------|--------|------|--------|
| Wild columbine | Aquilegia canadensis | Apr–Jun | red w/yellow | | • | Μ | PS, Sh |
| Swamp milkweed | Asclepias incarnata | Jul-Aug | rose | • | | M,W | FS |
| Common milkweed | Asclepias syriaca | Jun-Aug | pink | • | | M,W | FS |
| Butterfly-weed | Asclepias tuberosa | May-Sep | orange | • | • | D | FS |
| New Jersey tea | Ceanothus americanus | May–Jul | white | • | • | D,M | FS, PS |
| Trumpet creeper | Campsis radicans | Jul-Aug | orange | | • | Μ | FS, PS |
| Turtlehead | Chelone glabra | Jul-Sep | whitish | | • | M,W | FS, PS |
| Sweet pepperbush | Clethra alnifolia | Jul-Aug | white | • | | Μ | FS, PS |
| Purple coneflower | Echinaca purpea | Jul-Sep | purple | • | | D,M | FS |
| Joe-pye weed | Eupatorium fistulosum | Aug-Sep | dusty rose | • | | M,W | FS, PS |
| Blue flag | Iris versicolor | May–Jun | blue | | • | M,W | FS, PS |
| Wood nettle | Laportea canadensis | Jul-Aug | white | | • | Μ | PS, Sh |
| Blazing star | Liatris spicata | Jul-Aug | purple | • | | Μ | FS |
| Cardinal flower | Lobelia cardinalis | Jul-Sep | scarlet | • | • | M,W | FS, PS |
| Great blue lobelia | Lobelia siphilitica | Jul-Oct | blue | • | • | M,W | FS, PS |
| Trumpet honeysuckle | Lonicera sempervirens | May-Oct | pink/fuchsia | | • | Μ | FS, PS |
| Bee-balm | Monarda didyma | Jul-Aug | red | • | • | Μ | FS |
| Phlox | Phlox divaricata | May–Jun | lilac | • | | Μ | PS, Sh |
| Phlox | Phlox maculata | Jun-Sep | purple | • | | Μ | PS, Sh |
| Phlox | Phlox paniculata | Jul-Oct | pink | • | | Μ | PS, Sh |
| Cutleaf coneflower | Rudbeckia lacianata | Jul-Sep | yellow | • | | Μ | FS |
| Wrinkle-leaf goldenrod | Solidago rugosa | Aug-Oct | yellow | • | | Μ | FS, PS |

NOTES

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Top to bottom: Monarch, Silverspotted Skipper, Eastern Tailed-Blue

Common Butterflies and Host Plants in your Garden

| Common Name | Scientific Name | Caterpillar host plant | Flight period |
|---------------------------|---------------------------|------------------------|---------------|
| Black Swallowtail | Papilio polyxenes | Carrot family | Apr-Oct |
| Eastern Tiger Swallowtail | Papilio glaucus | Tuliptree | Apr-Oct |
| Spicebush Swallowtail | Papilio troilus | Spicebush | Apr-Oct |
| Cabbage White | Pieris rapae | Cabbage family | Mar-Nov |
| Clouded Sulphur | Colias philodice | Clovers | Mar-Nov |
| Orange Sulphur | Colias eurytheme | Legume family | Mar–Nov |
| Eastern Tailed-Blue | Everes comyntas | Legume family | Arp-Oct |
| Spring Azure | Celastrina ladon | Shrub flowers | Mar-Sep |
| Question Mark | Polygonia interrogationis | Elms, nettles | Apr-Oct |
| Eastern Comma | Polygonia comma | Nettles | Apr-Oct |
| Mourning Cloak | Nymphalis antiopa | Willows | Feb-Nov |
| American Lady | Vanessa virginiensis | Pearly everlasting | May-Sep |
| Red Admiral | Vanessa atalanta | Nettles | May-Sep |
| Monarch | Danaus plexippus | Milkweeds | May-Sep |
| Silver-spotted Skipper | Epargyreus clarus | Black locust | May-Oct |
| Peck's Skipper | Polites peckius | Grasses | Jun-Sep |
| Red-banded Hairstreak | Calycopsis cecrops | Fallen leaves | Apr-Oct |
| Red-spotted Purple | Limenitis arthemis | Many trees | Apr-Oct |
| Pearl Crescent | Phyciodes tharos | Asters | Apr-Nov |



Spicebush Swallowtail caterpillar

Hummingbird Nectar Recipe

Combine one part sugar and four parts water in saucepan and bring to a boil. Remove from heat and let cool before filling the feeder. Do not add red food coloring — this can harm the birds. Store excess in refrigerator. Change the nectar frequently to discourage the growth of bacteria, especially in warmer months.