



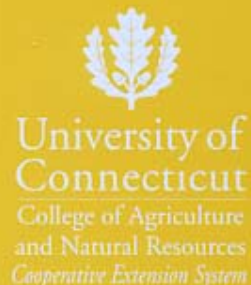
INTEGRATED PEST MANAGEMENT

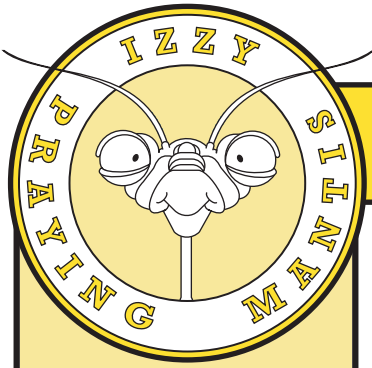
Unit 2 Section 3 Lesson 10 Design a Landscape

Focus Areas: Pest Control Methods -
Cultural; Science, Math, Graphic Design

Focus Skills: Research, measurement,
cooperative decision-making

Level of Involvement: MAXIMUM





***Dedicated
to Reducing
Pesticides***

Unit 2 Section 3 Lesson 10: Design a Landscape

Focus Areas: Pest Control - Cultural; Science, Math, Graphic Design

Focus Skills: Research, measurement, cooperative decision-making

Level of Involvement: MAXIMUM

Objectives

- * To determine appropriate plants for a Connecticut landscape
- * To design a landscape plan for a typical home or pocket park in Connecticut

Essential Question

What factors must be considered when designing a landscape for a home or park in Connecticut?

Essential Understanding

Plants (trees, shrubs, flowers, etc.) native to this area can provide the desired effect and have a better chance of surviving insect pests, diseases and climatic changes than introduced plants. Needs of the plant must be considered in the creation of a successful landscape design.

Background

See Handout 1 How to Plan a Garden

Vocabulary

annual

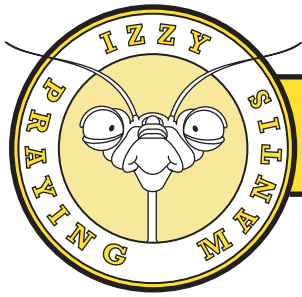
a plant that completes its life cycle in only one year

biennial

a plant that requires two years to complete its life cycle



University of
Connecticut
College of Agriculture
and Natural Resources
Cooperative Extension System



Unit 2 Section 3 Lesson 10: Design a Landscape

Vocabulary (continued)



habitat the place where a plant or animal lives

introduced species a species not native to a region

native species living or growing naturally in a particular region

perennial a plant that persists for several years

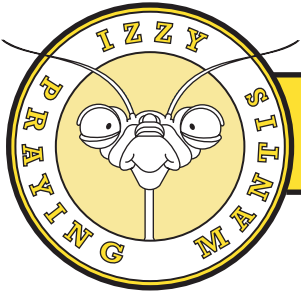
range the region where a species normally lives

Challenge Create a landscape design for a Connecticut home or pocket park , a small urban space

Logistics **Time:** three to four 45-minute periods
Group size: 4 to 30
Space: room for cooperative groups to work

Materials graph paper
tracing paper
Internet access
pencils
copies of magazines that focus on home and garden
reference materials on gardens *





Unit 2 Section 3 Lesson 10: Design a Landscape

Materials

(continued)

Handout 1 How to Plan a Garden *

Handout 2 Conserving Natural Enemies *

samples of landscape plans - pages 18 to 25 in

Enhancing Your Backyard Habitat for Wildlife *

Assessment for an Illustration / Poster *

Assessment for an Oral Report *

* single copy provided



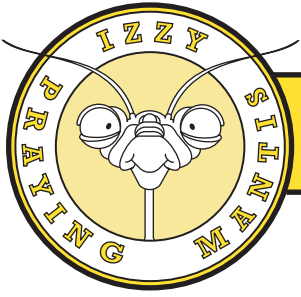
Preparations

1. Schedule a local landscaper and/or nursery owner to speak to the group
2. Arrange for the class to have computer lab time
3. Make copies of Handout 1
4. Collect graph and tracing paper
5. Collect garden magazines and plant brochures

Activity

Introduction

Have the group generate a list of factors that must be considered when designing a landscape for a home or pocket park. Invite a local expert to talk with the class about his/her occupation and answer questions from the group. The group then adds to the list of planning factors to be considered.



Unit 2 Section 3 Lesson 10: Design a Landscape

Activity

Involvement

1. Divide the group into landscape teams. The number of individuals per team depends on computers as well as print material available. However, no more than five per team is advised.
2. Distribute Handout 1; read and discuss.

Option #1 You may give group the criteria of the area to be designed: size, family background, location, various natural features, etc.

Option #2 Each group may determine their own criteria.

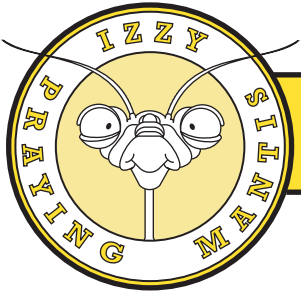
3. Distribute drawing materials.
4. Using printed materials and the Internet, have the teams design their landscape.
5. Teams display their final product to include pictures of the items they selected and a scale drawing.

Follow Up

Each team presents their plan, justifying their choices of materials and cost for completion.

Answer Key

none needed



Unit 2 Section 3 Lesson 10: Design a Landscape

Assessment

Evaluate the display and oral presentation of each group using the Assessments provided.

Follow Through

Focus Areas: same

Focus Skills: same

Each individual designs a plan for their own home.

Resources



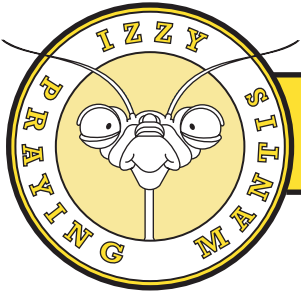
Internet Websites

<http://www.hort.uconn.edu/plants/>

<http://www.ct-botanical-society.org/garden/>

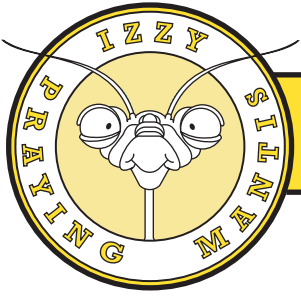
<http://www.ct-botanical-society.org/garden/garden2.html>

<http://www.ext.vt.edu/departments/envirohort/factsheets2/veghome/feb88pr1.html>



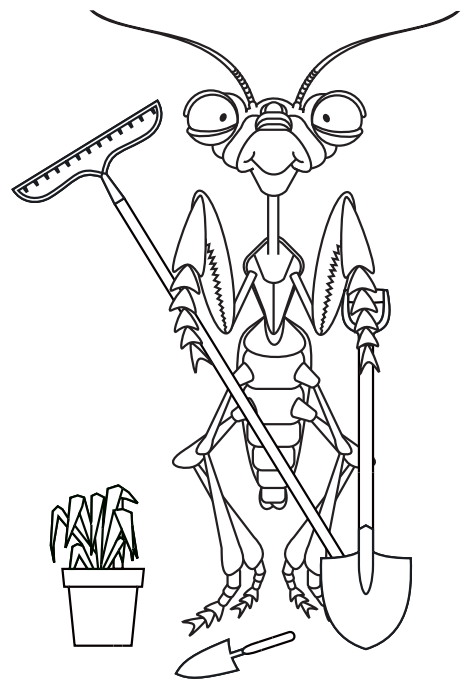
Unit 2 Section 3 Lesson 10: Design a Landscape

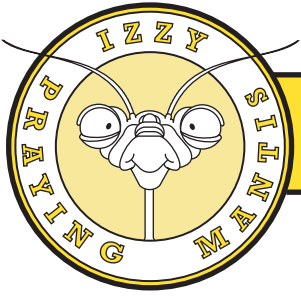
Notes



Unit 2 Section 3 Lesson 10: Design a Landscape

Notes





Unit 2 Section 3 Lesson 10: Design a Landscape

Notes



Unit 2 Section 3 Lesson 10: Design a Landscape

Handout 1

How to Plan a Garden

Written by Sarah Haertl

Gardening truly is one of the finer things in life. Watching flowers transform from seeds to bloom is very gratifying. But gardening failures are hard to take. Imagine how upsetting it is to buy bulbs, carefully plant and fertilize them only to have the flowers die because of poor soil or not enough sun. This is why careful planning is important to the success of any garden.

To begin your garden blueprint, get a blank piece of paper, graph paper is even better. Draw an outline of your house, garage, storage shed, swing set, deck, trees, and any other existing landmarks in your yard. Don't forget to include walkways or paths. You should also include existing flowerbeds or gardens. If you have children, think about high traffic areas. Don't plant a flowerbed in an area likely to be the 20-yard line of the family football game.

The next step is to determine the sun's pattern in your yard. Use a pencil to color the areas of your yard that are mostly shaded. Make notations for areas that get morning sun, areas that get afternoon sun, and areas that get full sun. This is an important step because the amount of sun each area receives will determine what plants you will plant there. Take into consideration the mature height of trees in your yard. Just because your oak tree is only 15 feet tall now, doesn't mean it will stay that height. The taller the tree, the more shade it provides.

Next, mark any areas that drain poorly. If you do not have a sprinkler system, mark where your faucets are. You won't want to plant flowers that require lots of water in hard to reach places in your yard.

Finally, draw in your windows and doors as well as outdoor sitting areas. The view of your back yard from different vantage points is an important consideration in planning your garden.

If you are planning to do any deep digging, you should find out where electrical, sewer, gas and phone lines are located in your yard.

The next step is to have your soil tested. Before you can choose plants and flowers for your yard, you need to understand what will grow best in different areas. You should take samples from several different areas of your yard, since soil can vary from one place to another. Check with your local county extension agency for soil testing information. Once you have the results, you may need to take steps to improve the soil before you can plant.



Unit 2 Section 3 Lesson 10: Design a Landscape

Handout 1

How to Plan a Garden

Now comes the fun part -- choosing plants and flowers. Attach a piece of tracing paper over your blueprint. By using tracing paper, you can create several different designs and then choose the pattern you like best.

Before you start designing flowerbeds, you should answer a few questions:

1. How much time do I want to spend maintaining my garden?
2. What type of edges do I want for my flowerbeds?
3. How much yard or grass do I want left in my yard?
4. What color schemes do I want in my yard?
5. Are there any areas in my yard where nothing seems to grow?

Now begin working on your tracing paper. Start with the shady areas. Consider where you want perennials and where you want annuals. Get a list, or better yet, a gardening book with color photographs of plants and flowers that grow in the shade. On your blueprint, use colored pencils to shade the area with the color of the flower or plant you are putting there. Think about what colors complement each other and the height each plant or flower will mature to.

Now move to the sunny or partially sunny areas of your yard. Think about the type of border you want for flowerbeds or paths. Don't forget to plant for each season. Make sure you have flowers that bloom in early spring as well as flowers that bloom clear up until the first frost. This way your yard will never be void of color.

Next, work the areas of your yard where nothing seems to grow. Talk to your local nursery about groundcovers that grow well in your area.

The final step is to draw in the location of planters. While you may change the flowers in your planters from year to year, they are still an important part of the overall design of your yard.

Once you have your entire yard mapped out, now it's time to begin the work. Don't be afraid to change your plans if you find something you like better. Most of all have fun.

Used with permission by PageWise Permissions.

Website: http://ctct.essortment.com/howtoplanaga_rgwu.htm



Unit 2 Section 3 Lesson 10: Design a Landscape

Handout 2

Conserving Natural Enemies

Table 2. Good Flowers for Predators and Parasitoids.

Umbelliferae (carrot family)

caraway	<i>Carum carvi</i>
coriander (cilantro)	<i>Coriandrum sativum</i>
dill	<i>Anethum graveolens</i>
fennel	<i>Foeniculum vulgare</i>
flowering ammi or bishops flower	<i>Ammi majus</i>
Queen Anne's lace (wild carrot)	<i>Daucus carota</i>
toothpick ammi	<i>Ammi visnaga</i>
wild parsnip	<i>Pastinaca sativa</i>

Compositae (aster family)

blanket flower	<i>Gaillardia</i> spp.
coneflower	<i>Echinacea</i> spp.
coreopsis	<i>Coreopsis</i> spp.
cosmos	<i>Cosmos</i> spp.
goldenrod	<i>Solidago</i> spp.
sunflower	<i>Helianthus</i> spp.
tansy	<i>Tanacetum vulgare</i>
yarrow	<i>Achillea</i> spp.

Legumes

alfalfa	<i>Medicago sativa</i>
big flower vetch	<i>Vicia</i> spp.
fava bean	<i>Vicia fava</i>
hairy vetch	<i>Vicia villosa</i>
sweet clover	<i>Melilotus</i> spp.

Brassicaceae (mustard family)

basket-of-gold alyssum	<i>Aurinia saxatilis</i>
hoary alyssum	<i>Berteroa incana</i>
mustards	<i>Brassica</i> spp.
sweet alyssum	<i>Lobularia maritima</i>
yellow rocket	<i>Barbarea vulgaris</i>
wild mustard	<i>Brassica kaber</i>

Other plant families

buckwheat	<i>Fagopyrum sagittatum</i>
cinquefoil	<i>Potentilla</i> spp.
milkweeds	<i>Asclepias</i> spp.
phacelia	<i>Phacelia</i> spp.



Unit 2 Section 3 Lesson 10: Design a Landscape

Assessment for an Oral Report

Name of speaker: _____

Rating scale 5 high; 1 low

Presentation contains adequate and accurate information. _____

Presentation is well organized. _____

There is evidence that presentation has been practiced. _____

(If applicable) visuals are used effectively. _____

Presentation considers age, interest and prior knowledge of the listening audience. _____

Volume, pace and expression are appropriate. _____

Speaker makes eye contact with audience. _____

Comments: _____



Unit 2 Section 3 Lesson 10: Design a Landscape

Shady Perennials

Margaret Hagen
Extension Educator
Hillsborough County
University of New Hampshire

A shaded yard is truly a wonderful gardening environment. These slightly mysterious settings, rarely touched by the sun's rays, can come alive with the textures, colors and flowers of a rich variety of plants. Do not be fooled by the shade. Too often gardeners experience a hopeless feeling when confronted by a shady area. In reality, many plants not only grow well in some shade, but prefer it.

Shade is often difficult to understand since it is described in so many ways: light, dappled, dark, semi, morning, partial, heavy, etc. Because plant growth is variable, assigning an exact lighting requirement for each plant species is impossible. Therefore, the half day sun and shade categories were developed. Half day sun is roughly defined as three to four hours of sun with bright light the rest of the day. Shade is defined as a low light area with little or no direct sun. Shade plants will tolerate low light levels, but will actually perform better under brighter conditions.

Successful shade gardens are determined by two basic guidelines: choosing the appropriate plants and understanding their soil environment. Analyze your garden carefully, keeping track of where the sun falls and the overall brightness of each area. Determine if an area receives a half day of sun or mostly shade. Then, select the appropriate plants. These guidelines are very flexible, and in borderline situations, never hesitate to try a new plant.

In all cases, a plant's chance of success in low light is greatly increased with proper soil preparation. In most landscapes, shady areas are associated with a very dry, hard mineral soil. Over time, leaves and other organic debris are often removed by raking, while existing plants continue to pull nutrients from the soil. This leaves the soil to compact and mineralize. Before introducing new plants to these areas, it is a good idea to rejuvenate the existing soil. Incorporate six to ten inches of organic matter (compost, peat moss, manure) and a basic fertilizer like 10-10-10 (one to two pounds per 100 square feet).

There are many favorites to use in the shade garden. Old standbys include the delicate nodding flowers of colorful columbine and Virginia bluebells. Bleeding heart, astilbe and foamflower all grow beautifully surrounded by wandering forget-me-nots, lady's mantle or wild ginger.



Unit 2 Section 3 Lesson 10: Design a Landscape

Shady Perennials (continued)

In my opinion, a shade garden is not complete without incorporating the three shade aristocrats: fern, hosta and epimedium. Ferns give a delicate, peaceful feeling to a landscape. Performing their best in a rich organic soil in bright light, ferns are also a staple under the dark canopies of elms, oaks and Norway maples. The availability of numerous species of ferns allows for a flexible design plan. Try the stately, upright fronds of the cinnamon fern with can reach a height of four feet. From the ferns center emerges a thick fertile frond covered with bright cinnamon-colored spores. Try the smaller Japanese painted fern. Growing only 15 inches tall, this is one of the more brilliantly colored ferns. The center midrib of each frond is dark red, blending to gray, then lustrous deep green near the leaf s edges.

The lush, delicately colored foliage of hostas (or plantain lilies) makes them a welcome addition to any shade garden. Beautiful combinations of deep greens, steel blues, bright yellows and pure whites makes hostas very popular. Until 10 to 15 years ago, hostas actually lacked popularity. The original variegated varieties were thought to be boring, unimaginative and just too common.

Today, current varieties sparkle with life. Hosta Gold Standard has variegated leaves blended with rich golds, yellows and greens. Hosta Antioch adds beautiful contrast to dark areas with its striking pure white and green leaves. Dwarf hostas are very special. Ginko Craig grows to nine inches tall with attractive purple flowers on six-inch spikes. Hosta longissima has long, narrow, solid green leaves. The plant height is only eight inches including the delicate clusters of white flowers. Purple, lavender or white flowers are the bonus that comes with hostas. Royal Standard is one hosta variety grown specifically for its flowers. Beautiful one-inch white blooms with a sweet fragrance are produced in quantity along two-foot flowering stems.

Whatever the degree of shade, epimedium or barrenwort will thrive, developing slowly into dense mats of foliage. Epimedium species have leathery, heart-shaped leaves tinged red in spring when they first emerge. As time passes, the leaves form layers, giving added dimension to this wonderful groundcover. Clusters of yellow or red flowers produced on wiry stems mingle with the developing spring foliage. With appropriate soil rejuvenation and an occasional irrigation during dry spells, barrenwort will grow in virtually any location in your yard.



Unit 2 Section 3 Lesson 10: Design a Landscape

Shady Perennials (continued)

Perennials suited for half day sun:

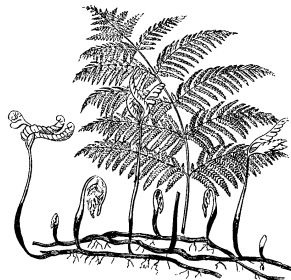
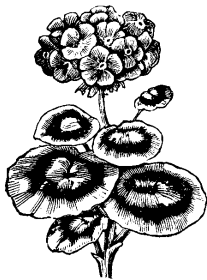
Aconitum	Ajuga	Alchemilla	Anchusa
Anemone	Aquilegia	Aruncus	Asarum
Astilbe	Baptisia	Bergenia	Campanula
Ceratostigma	Cheiranthus	Chrysanthemum	Cimicifuga
Convallaria	Dianthus	Dicentra	Digitalis
Doronicum	Echinops	Epimedium	Ferns
Galium	Geranium	Hedera	Helenium
Heuchera	Hosta	Houttuynia	Hypericum
Lamiastrum	Lamium	Liatris	Lobelia
Lunaria	Lupinus	Lysimachia	Mertensia
Myosotis	Pachysandra	Paeonia	Papaver
Penstemon	Phlox	Physostegia	Platycodon
Polemonium	Potentilla	Tiarella	Tradescantia
Veronica	Viola		

Perennials for full shade:

Ajuga	Ferns	Lamium	Tiarella
Asarum	Galium	Vinca	Convallaria
Hedera	Mertensia	Dicentra	Hosta
Myosotis	Epimedium	Lamiastrum	Pulmonaria

Woody Vines and Shrubs

Ampelopsis	Parthenocissus	Euonymus	Polygonum
Hydrangea	Stephanandra	Ligustrum	Symphoricarpos
Lonicera			





Unit 2 Section 3 Lesson 10: Design a Landscape

Annuals Made for the Shade

Margaret Hagen
Extension Educator
Hillsborough County
University of New Hampshire

Nearly every garden or landscape has a shady spot. Shadows may be cast from overhead branches, nearby buildings, plants, fences or walls and may change with the time of day or year. These areas need not be barren, simply mulched or repeatedly planted with begonias or impatiens, but may support a variety of the right plants.

Take into account the degree of shade present. Shade varies considerably, but is generally classified as **deep shade (D)**, **medium shade (M)** or **intermittent shade (I)**. **Deep shade** never receives any direct sunlight and is found at the base of the north side of buildings or other structures and under the boughs of needled evergreens or low-branching broadleaf evergreen trees and shrubs. Foliage plants may grow here, but few plants flower.

Areas of **medium shade** are those under densely branched, deciduous trees in leaf, areas receiving reflected light or on the north side of buildings with unobstructed sky. Most plants will grow in **medium shade**, but not necessarily thrive. Sufficient light is received for flower production on some, like impatiens.

Partial or **intermittent shade** is the dappled sunlight shining through sparsely branched, deciduous trees in leaf, the filtered light of arbors or trellises and areas that are sunlit for part of the day (less than six hours) or only seasonally.





Unit 2 Section 3 Lesson 10: Design a Landscape

Annuals Made for the Shade (continued)

Following is a list of numerous annuals suited for shady locations. It indicates which type of shade is preferred.

<i>Begonia x semperflorens cultorum</i>	wax begonia	I, M
<i>Browallia speciosa</i>	Browallia	I, M
<i>Coleus x hybridus</i>	coleus	I, M (avg. to dry soils)
<i>Cosmos bipinnatus</i>	cosmos	I (avg. to dry soils)
<i>Digitalis purpurea</i>	annual foxglove	I
<i>Fragaria vesca</i>	Alpine strawberry	I
<i>Impatiens balsamina</i>	garden balsam	I
<i>Impatiens wallerana</i>	impatiens	I, M
<i>Lobelia erinus</i>	lobelia	I
<i>Lobularia maritima</i>	sweet alyssum	I
<i>Lunaria annua</i>	money plant	I
<i>Lupinus hybrids</i>	annual lupines	I
<i>Malcomia maritima</i>	Virginia stock	I
<i>Mimulus hybrids</i>	monkey flower	I, M (good in wet soils)
<i>Nemophila menziesii</i>	baby-blue-eyes	I
<i>Nicotiana alata</i>	flowering tobacco	I
<i>Nierembergia hippomanica</i> <i>var. violacea</i>	cupflower	I
<i>Oenothera deltooides</i>	evening primrose	I
<i>Pelargonium x domesticum</i>	Martha Washington geranium	I (average to dry soils)
<i>Reseda odorata</i>	mignonette	I
<i>Rudbeckia hirta</i> Gloriosa	gloriosa daisy	I (average to dry soils)
<i>Thunbergia alata</i>	black-eyed Susan vine	I (moist soils)
<i>Torenia fournieri</i>	wishbone flower	I, M (good in wet soils)
<i>Viola x wittrockiana</i>	pansy	I

Taken from PENpages News, Pennsylvania State University, University Park, Pennsylvania.



Unit 2 Section 3 Lesson 10: Design a Landscape

Article

Sustainable Landscapes

Because most homeowners know little about tree, shrub and flower pests, and suppliers tend to stock what sells, our landscapes tend to contain many plants which require extensive management and excessive use of pesticides to maintain. Furthermore, these plants often die prematurely and require additional money to replace.

Choosing sustainable trees, shrubs, hedges and flowers for a landscape is a crucial step in planning. For example, in Connecticut a backyard hedge of Canadian hemlocks requires annual pesticide applications to protect it from hemlock woolly adelgid on top of the thousand-dollar price tag to plant it in the first place. This problem could be avoided by planting Japanese or western hemlocks instead. Dogwoods planted in yards require three sprayings of fungicides per season to control anthracnose. *Cornus kousa* and the Stellar series hybrid dogwoods display similar form and flowering characteristics but are not affected by the disease. As these hedges and trees mature, they become too large and too costly to spray! Minus the chemical protection, non-sustainable trees, shrubs and plants die and need to be removed and replaced, adding to the economic price tag.

The solution to these landscape woes is to research the pests that are prevalent in the area and select plants that are resistant or unaffected by the pests. Design a landscape with sustainable shrubs, trees, hedges and flowers and reduce the need for pesticide application and ultimately costly replacement. There are resources such as the University of Connecticut Plant Database at www.hort.uconn.edu/plants/ available to help in determining which trees, shrubs and plantings are suitable for southern New England.



Unit 2 Section 3 Lesson 10: Design a Landscape

Article

Designing Gardens

Catherine L. Johnston
Landscape Architect

The first step to a successful design is to select a concept for the garden. A concept is the idea that organizes the design. A concept may evolve from a particular plant in its peak bloom or a cultivar that you are interested in. Resist the temptation to use all of your ideas at the same time.

An effective and memorable garden is one designed around one strong concept. After a concept is chosen, plant species may be selected. In addition to reinforcing a concept, plant selection should be based on cultural suitability and visual characteristics. It is wise to use restraint in plant selection. Each planting scheme should be a combination of a few well-chosen plant species carefully combined.

Cultural requirements, such as moisture, sun exposure, soil fertility and structure, are prerequisites for plant selection in all gardens. It is wise to group plants together that can be grown together. A similarity in culture may become the organizing element of a design. Using the concept of a bog garden may be an opportunity to use plants that like wet feet or to introduce native plant material. Plant material may be grouped to solve a problem situation that commonly occurs in the landscape, for example, a shade site.

Visual characteristics are an important consideration in the selection of plant material for all plant combinations. Plant form, color and texture should be considered. Plant **form** is the mature silhouette of a plant and may range from rounded to columnar to weeping. A garden may feature a plant form, and the plant selection may be based on the repetition of a particular form.

A second visual quality of plants is **texture**. Textures range from repetition of a particular texture from fine through medium to coarse. The size and shape of the stems, leaves, bark and buds; and the interplay of light and shadow affect the visual quality.

Color in plant parts, whether flowers, fruit or foliage, may be repeated to create unity. A hue is the name of a color. Colors are warm or cool, depending upon their hue. Warm colors are those ranging from yellow through orange and into red hues. Colors ranging from green through blue and into violet hues are cool. A concept may be selected that groups plants with warm or cool flower colors together.



Unit 2 Section 3 Lesson 10: Design a Landscape

Article

Designing Gardens (continued)

Plant colors vary not only in hue but also in intensity and value. Intensity is the amount of a hue and value is the lightness or darkness of a hue. A concept may emphasize one particular plant color. This monochromatic, or one-color garden, is composed of plants with flowers of one hue that vary in intensity or value.

An herb garden or an English cottage garden groups plants together by a commonality of use. In selecting plants to implement these concepts, it is desirable that these plants also be evaluated for their cultural and visual characteristics.

With plant material selected that successfully demonstrates a concept, plants may next be arranged in the garden. Plant material arranged in masses will make a stronger impression. Plants are best arranged in large sweeping plant drifts. Wide towards the center and tapering towards the ends, the drifts interlock to form a solid groundcovering.

Plant drifts within the planting bed are ideally ranked for a progression in plant height. Drifts of low-growing plants, preferably with attractive foliage, are situated to the front, with progressively taller plants to the rear. Plants in the foreground aid in concealing unattractive bases of the taller plants.

In placing one plant beside another, realize that you are creating a sequence in the planting as a whole. Gradual change in the visual traits of plants will lead the eye through the planting.

Progressing from a fine textured plant to a medium texture and finally to a coarse texture is a gradual sequence. An abrupt change in form, texture or color should be made where a focal point or a point of emphasis is desired. A red flowering perennial in a mass planting of blue perennials will create contrast and draw the eye to it. This may effectively be used to feature a particular plant species.

Work with some of the plant combinations or create your own. Create plant combinations that are unified by a concept. Look for some element of repetition that gives the appearance that the plants belong together or have unity.



Unit 2 Section 3 Lesson 10: Design a Landscape

Assessment for a Landscape Illustration/Poster

Criteria	Possible Points	Points Earned
1. Knowledge of topic is evident in final product.	_____	_____
2. Purpose / theme is readily understood.	_____	_____
3. All details contribute to purpose and theme.	_____	_____
4. Information is accurate.	_____	_____
5. Effectively gets the attention of the audience.	_____	_____
6. Final product is well-organized in design and print.	_____	_____
7. Use of space is balanced.	_____	_____
8. Mechanics (spelling, punctuation, grammar) are correct.	_____	_____
9. Illustration is neatly done.	_____	_____
10. The final product shows creativity and originality.	_____	_____
Total Points	_____	_____

Comments:



Unit 2 Section 3 Lesson 10: Design a Landscape

Assessment for an Oral Report

Name of speaker: _____

Rating scale 5 high; 1 low

Presentation contains adequate and accurate information. _____

Presentation is well organized. _____

There is evidence that presentation has been practiced. _____

(If applicable) visuals are used effectively. _____

Presentation considers age, interest and prior knowledge of the listening audience. _____

Volume, pace and expression are appropriate. _____

Speaker makes eye contact with audience. _____

Comments: _____

Habitat Enhancement

Developing a Plan

Using the habitat assessment from on the inside back cover, list the existing habitat components on your property. Next, make a sketch of the property showing the boundaries and the existing habitat components. A property boundary map or plot plan of your lot will make it easier to draw a sketch of it. The house footprint, driveway, roads, streams, ponds, or other landmarks make good reference points. (Use the wildlife habitat components listed on page 6 for reference.) Then, ask the following questions:

1. Which habitat components are limited or lacking on my lot?
2. What is practical or feasible to add to the lot to make it more attractive for wildlife?
3. Are there any invasive exotic plants that should be removed to improve conditions for native plants?
4. What additional wildlife species do I want to attract, and what can I do to provide habitat to attract them? (Note: The type of habitat in surrounding areas may limit species which can be attracted.)

You may need to consult field guides to identify some of the plants and wildlife that occur on your lot. A visit to the DEP's Sessions Woods Wildlife Management Area, in Burlington, would also be helpful. Wildlife habitat enhancement is demonstrated along the area's trails, and a

separate backyard habitat demonstration area contains trees and shrubs labeled to help visitors identify valuable wildlife food plants.

Developing Your Backyard Habitat

The location and size of your property will greatly influence the species of wildlife you can attract. As an area is transformed from predominantly forested (rural) to fragmented and isolated small forests (suburban, urban), the wildlife that inhabit the area change. Some wildlife are generalists that adapt to change, while others are specialists that are less adaptable to change and less tolerant of disturbance.

The following two examples of suburban and rural lots are from the author's notes, observations, and personal experience. A study of the properties using detailed wildlife censusing techniques would yield more information about the wildlife use. Your lot may be similar to one of the examples or it may be quite different. These examples of real life situations should be a helpful guide. Learn as much as you can about the habitat components and determine what you can do to enhance your lot for wildlife. Remember, you are the habitat manager and you can plan and shape your backyard habitat to fit your goals for wildlife, as well as your needs for living space.

Invasive Exotic Plants Not Recommended to Be Planted

Trees

Norway Maple (*Acer platanoides*)
Tree of Heaven (*Ailanthus altissima*)
Catalpa (*Catalpa spp.*)

Shrubs

Autumn Olive (*Elaeagnus umbellata*)
Winged Euonymus (*Euonymus alatus*)
Privet (*Ligustrum spp.*)
Amur Honeysuckle (*Lonicera mackii*)
Morrow's Honeysuckle (*Lonicera morrowii*)

Tartarian Honeysuckle (*Lonicera tatarica*)
Common Buckthorn (*Rhamnus cathartica*)
Glossy Buckthorn (*Rhamnus frangula*)
Multiflora Rose (*Rosa multiflora*)

Vines

Asiatic Bittersweet (*Celastrus orbiculatus*)
Japanese Honeysuckle (*Lonicera japonica*)

My Own Experience

Suburban Area

My first home was on a quarter-acre lot in central Connecticut. Because it was next door to the house where I grew up, I observed the wildlife that occurred there over many years. Most of the surrounding neighborhood had small lots (less than a half-acre) with a 10-acre undeveloped oak/hickory forest behind the houses. The bird species I observed either nesting, resting, feeding on natural plant foods, or visiting artificial feeders and water sources were: blue jay, northern cardinal, tufted titmouse, American robin, common grackle, brown-headed cowbird, American crow, European starling, house sparrow, house finch, house wren, dark-eyed junco, black-capped chickadee, Baltimore oriole, northern flicker, northern mockingbird, chimney swift, ruby-throated hummingbird, gray catbird, downy woodpecker, and eastern screech-owl. The mammals I either observed or found evidence of on our property were: gray squirrel, southern flying squirrel, woodchuck, raccoon, opossum, eastern striped skunk, eastern cottontail rabbit, white-footed mouse, short-tailed shrew, eastern star-nosed mole, Norway rat, and big brown bat. The reptile and amphibian species that I found occasionally were: eastern American toad, eastern garter snake, redback salamander, and wood turtle.

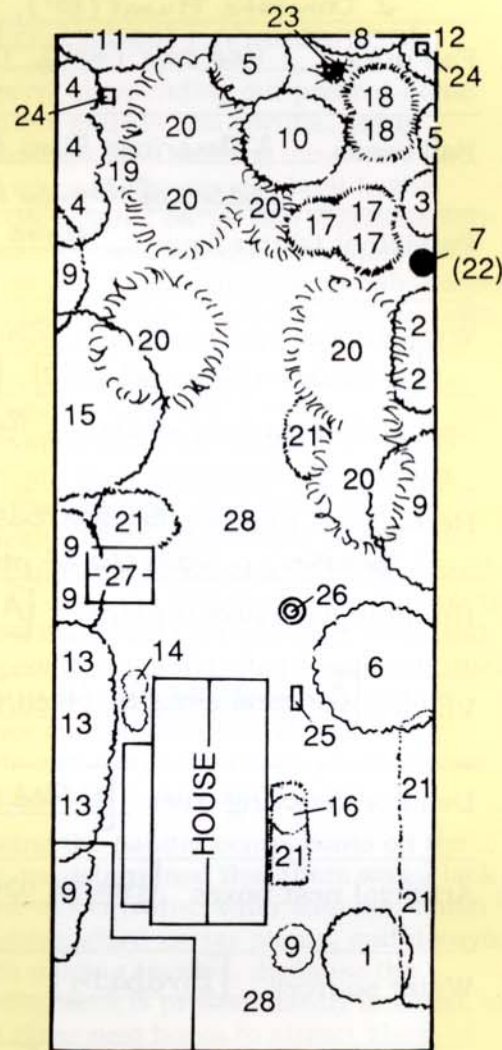
Suburban Lot Habitat Enhancement

The space on the quarter-acre lot was occupied by a 100-year-old house, garage, lawn, and backyard garden. In assessing the wildlife habitat, we determined that there was a lack of winter cover, fall fruits, vines, dead or decaying trees, brush piles, fallen logs, water sources, nest boxes, and plant diversity.

One of the first things we did was to install a house wren nest box and a chickadee nest box. Then we set up a suet feeder and a roofed box feeder filled with black oil sunflower seed. The edges of the east and west boundaries of the backyard had a large stand of Norway maples, which are non-native and invasive trees. To increase plant diversity, we removed many of the Norway maples so the sunlight-deprived

Suburban Lot Example

not to scale



- | | |
|---------------------|-------------------------------|
| 1 Apple | 15 American Elm |
| 2 Plum | 16 Rhododendron |
| 3 Black Cherry | 17 Eastern Hemlock |
| 4 Pear | 18 Pitch Pine |
| 5 Flowering Dogwood | 19 Grape Vine |
| 6 Forsythia | 20 Raspberries / Blackberries |
| 7 Red Maple | 21 Flower / Fern Garden |
| 8 Sugar Maple | 22 Snag |
| 9 Norway Maple | 23 Brush Pile |
| 10 Red Mulberry | 24 Nest Box |
| 11 Red Oak | 25 Feeder |
| 12 Black Oak | 26 Birdbath |
| 13 Butternut Walnut | 27 Shed |
| 14 Arborvitae | 28 Lawn |

Backyard Habitat Assessment Form - Suburban Lot

This is an example of how the form was used to assess the suburban lot. Items in brackets are habitat components added following habitat assessment.

1. Early summer fruits 1 Red Mulberry (15'), [Many patches of blackberries and raspberries]
 2. Fall fruits 2 Flowering Dogwoods (15', 25'), 1 Black Cherry (30')
2 Domestic Plums (10'), 3 Pears (10', 15', 20'), 1 Apple (8')
 3. Fall nuts 1 Red oak (60'), 1 Black oak (60'), 3 Butternut Walnuts (20', 25', 30')
 4. Fall seeds 2 American Elms (15', 30'), 2 Sugar Maples (50')
Dozens of Norway Maple sprouts and small trees
 5. Persistent winter fruits None
 6. Winter cover and conifers 1 Rhododendron (4'), 2 Arborvitae (4')
[3 Eastern Hemlocks (5')] [2 Pitch Pines (6', 8')]
 7. Spring and summer seeds 1 Red Maple (30')
 8. Herbaceous plants Golden rods, Garden Phlox, Annual and perennial grasses, a variety of other wildflowers
 9. Hummingbird nectar plants [Annual impatiens planted in cultivated area]
 10. Vines [Concord Grapes (trellis)] [Wild grapevines at woods edge]
 11. Dead or decaying trees [1 Red Maple (40') - girdled]
 12. Artificial nest boxes [House wren nest box] [Chickadee nest box]
 13. Water sources [Birdbath]
 14. Brush piles and hollow logs [1 Brush pile at woods edge]
 15. Grit areas [Small sand pile]
 16. Artificial feeding [Roofed box feeder] [Suet feeder]
- Species of wildlife observed on property See page 19.

Improvements made to enhance habitat See pages 19 and 21.

Additional wildlife species desired _____

flowering dogwood and black cherry seedlings would grow, increasing the types of fall fruits. We left the southern third of the property unmowed, allowing the blackberries and raspberries growing along the woods edge to spread and form dense tangles. The many new grasses and wildflowers which colonized the unmowed patch attracted butterflies and occasionally sphinx moths. We added several eastern hemlocks and two pitch pine seedlings for future winter cover and built a brush pile out of the Norway maples. We built a trellis for Concord grapevines, which were pruned annually, and we planted more grapes along the rear edge of the property, letting these vines climb unpruned. A birdbath was added to provide a water source. On the western edge of the property, we used a chainsaw to girdle the base of a large red maple with decaying limbs. Within two years, the tree was dead and downy woodpeckers were commonly seen pecking away at the bark for insects. A pair of northern flickers and a pair of European starlings were seen fighting over a nesting cavity in one of the older limbs.

Rural Area

Our present house, on the outskirts of the same town, is located on a one-acre lot in a neighborhood of one- to four-acre lots. The east and north sides of the property are bordered by several hundred acres of undeveloped oak/hickory forest. Many of the wildlife species that are listed (in **bold**) for our current residence did not occur on the suburban lot. The bird species observed either nesting, resting, feeding on natural food plants, or visiting the artificial feeders and water sources are: **wood thrush, hermit thrush, ovenbird, scarlet tanager, ruffed grouse, rose-breasted grosbeak, mourning dove, eastern phoebe, American goldfinch, wild turkey, red-tailed hawk, white-breasted nuthatch, turkey vulture, pileated woodpecker, hairy woodpecker,** downy woodpecker, blue jay, northern cardinal, brown-headed cowbird, American robin, tufted titmouse, common grackle, American crow, European starling, house sparrow, house finch, dark-eyed junco, black-capped chickadee, Baltimore (Northern) oriole, northern flicker, northern mockingbird, chimney swift, ruby-throated hummingbird, gray catbird, and eastern screech-owl. The mammals observed were: **white-tailed deer,** raccoon, opossum,

woodchuck, eastern striped skunk, eastern cottontail rabbit, gray squirrel, flying squirrels, **red squirrel, eastern chipmunk,** white-footed mouse, eastern star-nosed mole, short-tailed shrew, big brown bat, and **red bat.** The reptiles and amphibians observed were: American toad, **wood frog,** redback salamander, **Jefferson salamander,** garter snake, and **ringneck snake.**

Rural Lot Habitat Enhancement

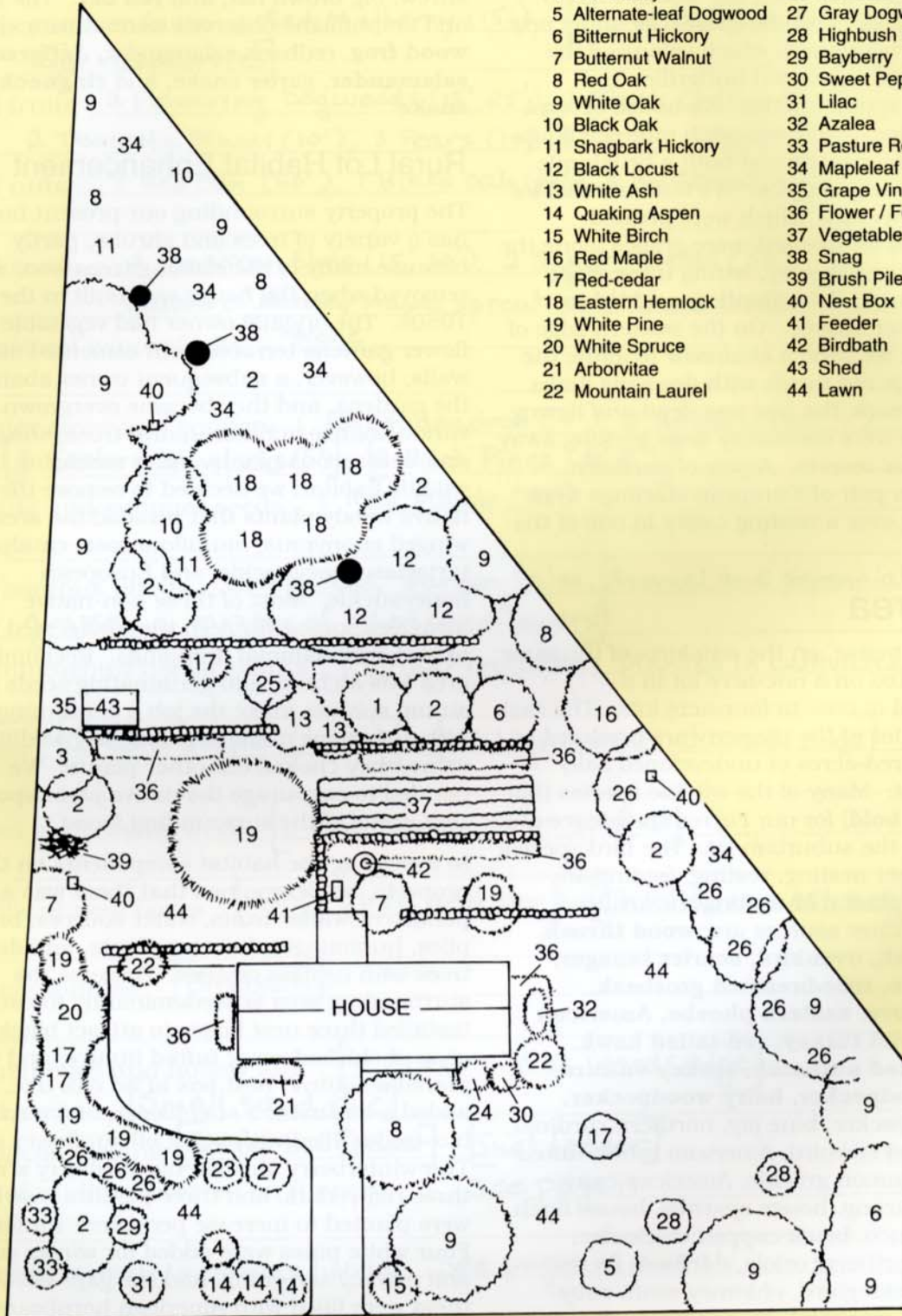
The property surrounding our present home has a variety of trees and shrubs, partly because many of the existing trees were not removed when the house was built in the 1950s. The original owner had vegetable and flower gardens terraced with cemented stone walls; however, a subsequent owner abandoned the gardens, and they became overgrown with various native and non-native trees, shrubs, and herbaceous plants. After assessing the wildlife habitat, we decided to remove the non-native woody plants that invaded the area: winged euonymus, multiflora rose, catalpa, tartarian honeysuckle, and European honeysuckle. Most of these non-native invasives spread through the undigested seeds of bird and mammal droppings. Reclaiming the area was a chore, and germinating seeds and stump sprouts make the job a continuing one. Although some of these plants had wildlife value, they choked out other plants. We decided to encourage the native plant species that occur in the surrounding forest.

In assessing the habitat components on the property, we determined that there was a lack of persistent winter fruits, water sources, brush piles, hummingbird nectar plants, and decaying trees with nesting cavities. Because the surrounding area is predominantly forested, we installed three nest boxes to attract black-capped chickadees or tufted titmice, and we placed a squirrel nest box in an oak tree. We added a birdbath, a suet feeder, and a roofed box feeder filled with black oil sunflower seed. Two winterberry shrubs, two bayberry shrubs, three red-cedars, and three pasture rose bushes were planted to increase persistent winter fruit. Four white pines were added for winter cover and privacy screening, and the gaps between them were filled with American hornbeam saplings transplanted from the woods edge. A sweet pepperbush shrub with fragrant, white-

Rural Lot Example

not to scale

- | | |
|--------------------------|-------------------------|
| 1 Black Cherry | 23 American Holly |
| 2 Flowering Dogwood | 24 Winterberry |
| 3 Red Mulberry | 25 Spicebush |
| 4 Pin Cherry | 26 American Hornbeam |
| 5 Alternate-leaf Dogwood | 27 Gray Dogwood |
| 6 Bitternut Hickory | 28 Highbush Blueberry |
| 7 Butternut Walnut | 29 Bayberry |
| 8 Red Oak | 30 Sweet Pepperbush |
| 9 White Oak | 31 Lilac |
| 10 Black Oak | 32 Azalea |
| 11 Shagbark Hickory | 33 Pasture Rose |
| 12 Black Locust | 34 Mapleleaf Viburnum |
| 13 White Ash | 35 Grape Vine |
| 14 Quaking Aspen | 36 Flower / Fern Garden |
| 15 White Birch | 37 Vegetable Garden |
| 16 Red Maple | 38 Snag |
| 17 Red-cedar | 39 Brush Pile |
| 18 Eastern Hemlock | 40 Nest Box |
| 19 White Pine | 41 Feeder |
| 20 White Spruce | 42 Birdbath |
| 21 Arborvitae | 43 Shed |
| 22 Mountain Laurel | 44 Lawn |



Backyard Habitat Assessment Form - Rural Lot

This is an example of how the form was used to assess the rural lot. Items in brackets are habitat components added following habitat assessment.

1. Early summer fruits 1 Red Mulberry (5'), 1 Alternate-leaf Dogwood (6'),
2 Highbush Blueberry (4'), Black Raspberry patches
 2. Fall fruits 7 Flowering Dogwoods (6'-20'), 1 Black Cherry (20'), 1 Pin Cherry (5'),
1 Am. Holly (3'), 1 Gray Dogwood (4'), 4 Red-cedars (4'-12'), 1 Spicebush (6'), 1 Winter-
berry (3')
 3. Fall nuts 11 White Oaks (25'-70'), 1 Black Oak (50'), 1 Red oak (60'),
4 Bitternut Hickory (6'-60'), 2 Butternut walnut (8', 30')
 4. Fall seeds 1 White Ash (30'), 2 White Birch (5', 8'), 5 Black locust (20'-40')
 5. Persistent winter fruits [2 Winterberry (3')] [4 Red-cedars (4'-12')]
[1 American Holly (3')] [2 Bayberry (4')] [3 Pasture Rose (3')]
 6. Winter cover and conifers 6 Eastern Hemlock (20'-50'), 1 White Pine (60'),
4 Red-cedar (4'-12'), 1 White Spruce (40'), 2 Mtn. Laurel (8'), 4 Arborvitae (6'), [4 white
Pines]
 7. Spring and summer seeds 1 Red Maple (50'), 14 American Hornbeam (10'-25')
 8. Herbaceous plants Goldenrods, wood Asters, New England Aster, Garden
Phlox, [Unmowed patches of wildflowers]
 9. Hummingbird nectar plants [Impatiens (annual)]
 10. Vines Wild grapevines
 11. Dead or decaying trees 1 Red Maple (40'), [1 Black locust (30')-girdled]
 12. Artificial nest boxes [2 Squirrel nest boxes] [1 House wren nest box]
[1 Chickadee nest box] [1 Tufted titmouse nest box]
 13. Water sources [Birdbath]
 14. Brush piles and hollow logs [1 Brush Pile]
 15. Grit areas [Small sand pile]
 16. Artificial feeding [Roofed box feeder] [Suet feeder] [Hummingbird feeder] [Thistle
feeder]
- Species of wildlife observed on property See page 21.

Improvements made to enhance habitat See pages 21 and 24.

Additional wildlife species desired _____

spiked flowers was planted to attract butterflies. We also have patches of areas that we mow once a year with a sickle bar mower to increase herbaceous cover.

We have also started removing surplus black locust trees. Although a native tree, the black locust thrives on previously disturbed sites because it is a nitrogen fixer and sends out root suckers. We have girdled some with a chainsaw to make snags, cut down others, and pulled out the smaller ones. A brush pile was constructed out of the cut brush. We plan to add several species of trees and shrubs over the next few years to the areas that had been overtaken by invasive plants. A trumpet creeper vine trellis to attract hummingbirds and butterflies is also planned.

Differences Between Locations

The major differences between the suburban and the rural lot are the species of wildlife and the quantity and type of habitat found on the lots and in their surroundings. The species diversity was higher on the rural lot for both plants and wildlife, despite over 15 years of reliable wildlife observations on the suburban lot and a mere three years of observations on the rural lot.

The suburban lot has a small 10 acre forest in the immediate neighborhood, whereas the rural lot has over 100 acres of adjacent forestland. Despite the differences, both lots were able to be improved for wildlife.

Remember that you are the habitat manager; your knowledge and skills can shape the future habitat on your lot. As you learn more about wildlife and its needs, you can make adjustments and improvements. Start on a small scale and expand as your knowledge and time increase. Learning to identify the plants and animals in your surroundings will help you appreciate the needs of wildlife and you will begin to see the connection between habitat and wildlife.

Urban Area

If a lot is surrounded mostly by tar and concrete, it is difficult to attract many species of wildlife. The following example is what an urban landowner recorded seeing on his lot:

The birds included pigeons, starlings, house sparrows, grackles, robins, blue jays, cardinals, mockingbirds, goldfinches, eastern kingbirds, barn swallows, cowbirds, chimney swifts, common nighthawks, and ring-billed gulls. The mammals seen were gray squirrel, raccoon, and house mouse. No reptiles or amphibians were found on the lot. This lot attracted many of the listed birds mostly because of the presence of a white mulberry tree with an abundance of fruit in early summer. A regular artificial feeding program may have attracted a wider variety of birds. Butterflies are more apt to frequent an urban lot with flowering plants, especially perennials. Some success will depend on local proximity to parks or other open spaces or water resources. Adding a birdbath may also help attract local birds and butterflies.

Attracting diverse wildlife species to an urban lot presents a bigger challenge than with a suburban or rural lot. Habitat improvements to the lot should maximize the types of vegetation that will grow there. Encourage plantings that create habitat by clustering plants and make the planted areas as large as possible.

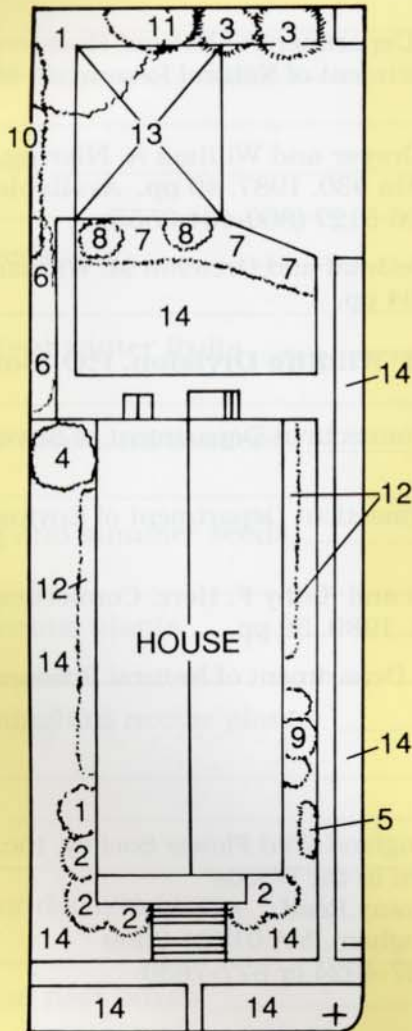
For heavily urbanized sections, a community-based effort is recommended; individuals with small properties can combine habitat enhancement efforts with their neighbors. A habitat enhancement project for a local school, park, open space, town forest, or other community-owned land can also be planned.

The urban resident can help conserve wildlife habitat by suggesting that undisturbed areas remain within proposed future developments in the city. This should be done during the planning stages of a development. Undisturbed areas should include native vegetation and interlink to form corridors for wildlife to travel in and use for food, cover, and nesting. These areas may require some vegetation management, such as removal of invasive non-native plants.

By retaining undisturbed areas, existing soils are also conserved, an especially important consideration in an urban area. The soil type has a profound effect on the types of vegetation that will grow on a site. Soil that has been compacted or altered significantly may lose its ability to grow the vegetation it originally nourished. Retaining the natural components of a site will enhance the site's capacity for supporting native wildlife.

Urban Lot Example

not to scale



- 1 White Mulberry
- 2 Red-cedar
- 3 White Spruce
- 4 Lilac
- 5 Japanese Barberry
- 6 Forsythia
- 7 Roses
- 8 Hibiscus
- 9 Hydrangea
- 10 Woody Vines
- 11 Norway Maple
- 12 Annual Flowers
- 13 Garage
- 14 Lawn

Backyard Habitat Certification

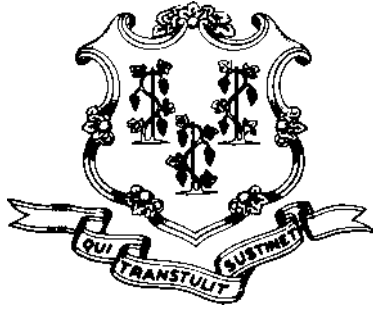
If you are interested in certifying your backyard with the Urban Wildlife Program, please contact the Wildlife Division at Sessions Woods Wildlife Management Area, P.O. Box 1550, Burlington, CT 06013-1550, or call (860) 675-8130.

The main objective of the Backyard Certification Project is to foster the appreciation of wildlife and its habitat by acknowledging those people who make an effort to learn about wildlife habitat and how to improve a property for wildlife. Applicants are sent a packet of information which includes a questionnaire, a habitat assessment sheet and a list of available publications. A small fee is charged to cover the costs of printing and mailing the information packet. Once the application is reviewed by a wildlife biologist, a certificate is mailed to the applicant. The certificate has no legal significance and does not supersede any local or state laws. It is intended to acknowledge people for their positive contribution to wildlife and their habitat.

Connecticut Native Tree and Shrub Availability List



Connecticut
Department of Environmental Protection
Bureau of Natural Resources
Wildlife Division



State of Connecticut

John G. Rowland, *Governor*

Department of Environmental Protection

Arthur J. Rocque, Jr., *Commissioner*

Branch of Environmental Conservation

David K. Leff, *Deputy Commissioner*

Bureau of Natural Resources

Edward C. Parker, *Chief*

Wildlife Division

Dale W. May, *Director*

**Department of Environmental Protection
Wildlife Division**

79 Elm Street
Hartford, CT 06106

Written by
Peter M. Picone
Urban Wildlife Biologist

Cover illustration by Paul J. Fusco
Yellow-rumped warbler on silky dogwood



The Connecticut Department of Environmental Protection is an equal opportunity agency that provides services, facilities and employment opportunities without regard to race, color, religion, age, sex, physical or mental disability, national origin, ancestry, marital status and political beliefs.

printed on recycled paper

Introduction

This availability list is designed to assist homeowners, landscapers and conservation organizations in locating **native** planting stock for wildlife habitat enhancement. It was compiled from a mail survey of Connecticut's registered nurseries. Of the respondents, many indicated that they have native trees or shrubs in stock or would obtain them by special order. Although some of the listed nurseries are strictly wholesalers, trees and shrubs can be ordered from them through your local nursery or garden center. Present this publication to your local retailer and request if they can order the plants for you.

Every plant is native to some location. When a plant is grown outside of its original location, it is usually classified as a non-native plant. For example, a Norway maple (*Acer platanoides*) is a native tree in Norway, but in the United States it is a non-native that now comprises a large segment of the street trees in our cities and suburbs. Some non-native plants are invasive and they aggressively compete with native plants. Norway maple is a potentially invasive tree, which when planted in suburban or rural areas it may eventually grow in adjacent woodlots, thus occupying space where native trees and shrubs would grow. The adaptability and vigor of the Norway maple is undeniable; however, if a disease or insect infestation occurs in a monoculture, a large die-off may occur. Planting different species is a good buffer against disease and insect infestations.

By their very nature, native plants have adapted to the climate of the area, making them naturally hardy. Wildlife have evolved using them for food, cover and shelter. Proper selection, care and placement of trees and shrubs can produce a landscape that is both visually attractive and beneficial to wildlife.

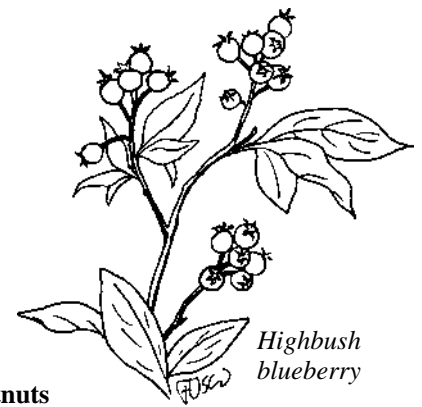
Landscaping with native plants may require gathering more information. Native plant descriptions, flowering and fruiting periods, site requirements and wildlife habitat values may be found in the references below.

- *Enhancing Your Backyard Habitat for Wildlife*, Peter M. Picone, DEP Wildlife Division. 1995. 28 pp. Available from DEP Wildlife Division, P.O. Box 1550, Burlington, CT 06013. Urban Wildlife Program (860-675-8130). E-mail: peter.picone@po.state.ct.us
- *Native Shrubs for Landscaping*, Sally L. Taylor, Glenn Dreyer and William A. Niering, The Connecticut College Arboretum, New London, CT. Bulletin #30. 1987. 40 pp. Available from the DEP Store, 79 Elm Street, Hartford, CT (860-424-3540).
- *Landscaping for Wildlife*, Carrol L. Henderson, Minnesota Department of Natural Resources. 1987. 144 pp. Available from Minnesota Department of Natural Resources, 500 Lafayette Rd., Box 7, St. Paul, MN 55155-4007.
- *Trees, Shrubs and Vines for Attracting Birds*, Richard M. DeGraaf and Gretchin M. Witman, University of Massachusetts Press, Amherst, MA. 1979. 194 pp.
- *American Wildlife & Plants, A Guide to Wildlife Food Habits*, Alexander C. Martin, Herbert S. Zim and Arnold L. Nelson, Dover Publications, Inc., NY. 1951. 500 pp.
- *Connecticut's Notable Trees*, Glenn D. Dreyer, *Memoirs of the Connecticut Botanical Society*, No. 2, 1989. 2nd ed. 1990. 94 pp. Available from the DEP Store, 79 Elm Street, Hartford, CT (860-424-3540).



Gray squirrel with shagbark hickory nut.

The following is a list of suggested native trees and shrubs. Look up the species in which you are interested and write down the numbers from the column on the right. Cross-reference the numbers with the nurseries listed on pages 10-14. These numbers indicate which nurseries have that tree or shrub in stock. **Bold** numbers indicate that the nursery can special order the plant.



Highbush blueberry

Evergreen Trees

Cedars

Atlantic White Cedar
(*Chamaecyparis thyoides*)
5, 10, **17**, 21, **23**, **26**, **28**, **29**, **31**, **32**, **35**,
42, 48, **50**, 54, **60**, **68**, 69, 72

Eastern Red-cedar
(*Juniperus virginiana*)
5, 8, 15, 17, **21**, 24, **25**, **26**, **29**, 30, 31,
32, 33, 34, **36**, 42, **45**, **48**, **50**, 53, 54, **55**,
56, **61**, **66**, 68, 72

Northern White Cedar
(*Thuja occidentalis*)
1, 5, 7, 8, 15, 17, **18**, 20, 21, 23, 24, 26,
28, **29**, 30, **31**, 32, 34, 36, 37, 42, 45, 49,
50, 51, 54, 56, **66**, 68, 72

Pines

Red Pine
(*Pinus resinosa*)
10, **16**, **26**, **27**, **29**, **31**, **32**, **50**, **51**, **62**, **66**,
68

Pitch Pine
(*Pinus rigida*)
26, **27**, **29**, **31**, **32**, 34, 35, **50**, **62**, **66**, **68**

White Pine
(*Pinus strobus*)
1, 2, 3, 4, 5, 6, 7, 8, 10, **11**, 12, 15, 16,
18, 17, 19, 20, 21, 22, 23, 24, 25, 26, **27**,
28, **29**, 30, 31, 32, 33, 34, 35, 36, 37, 38,
39, 40, 41, 42, **43**, 44, 45, 47, 48, 50, 51,
52, 53, 54, 55, 56, 57, **59**, **60**, **61**, **62**, 63,
64, 65, 66, 67, 68, 69, 70, 71, 72

Spruces

Black Spruce
(*Picea mariana*)
10, **17**, 23, 24, **26**, **27**, **29**, **31**, 35, 42, **50**,
55, **62**, 66, **68**

Red Spruce
(*Picea rubens*)
26, **29**, **31**, 34, **50**, **51**, **62**, **66**, **68**

Eastern Hemlock

(*Tsuga canadensis*)
1, 2, 3, 4, 6, 7, 8, 10, **11**, 12, 14, 15, 16,
17, **18**, 20, 21, 22, 23, 24, 25, 26, **27**, 28,
29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40,
41, 42, 43, 44, 45, 47, 48, 50, 51, 53, 54,
55, 56, 57, 59, 61, 62, 63, 64, 65, **66**, 68,
69, 70, 72

Deciduous Trees

Ashes

White Ash
(*Fraxinus americana*)
2, **6**, **10**, 15, 24, **25**, 26, **31**, **32**, 34, 37,
42, **50**, 56, 68

Black Ash
(*Fraxinus nigra*)
10, **26**, **31**, **32**, **50**, **68**

Green Ash
(*Fraxinus pennsylvanica*)
1, 2, **6**, 15, **17**, **18**, 21, 24, **25**, 26, 28, **31**,
32, 37, 40, 42, 45, 50, 51, 54, 55, 56, **57**,
68

Birches

Yellow Birch
(*Betula alleghaniensis*)
8, **26**, **31**, **32**, 34, **50**, 66, **68**

Black Birch
(*Betula lenta*)
8, **10**, **17**, 26, **31**, 32, 34, **51**, **66**, **68**, 69

Paper Birch
(*Betula papyrifera*)
1, 2, 3, **6**, 8, 10, 15, **17**, 21, 23, 24, 25,
26, 28, 30, **31**, 32, 34, 36, 40, 41, 42, 45,
50, 51, 54, 55, 57, **59**, **60**, 66, 68, 69, **73**

Gray Birch
(*Betula populifolia*)
8, 15, **17**, 23, **26**, **31**, 32, 34, **57**, **66**, 68

Cherries/Plums

Allegheny Plum
(*Prunus alleghaniensis*)
26, **31**, **32**, **51**, **68**

American Plum
(*Prunus americana*)
26, **31**, 32, 51, **68**

Pin Cherry
(*Prunus pensylvanica*)
26, **31**, 32, **68**

Black Cherry
(*Prunus serotina*)
26, **31**, 32, 34, **50**, **51**, **68**

Choke Cherry
(*Prunus virginiana*)
10, **25**, 26, **31**, 32, 34, 50, 51, **55**, **68**

Chestnuts

American Chestnut
(*Castanea dentata*)
26, **31**, **32**, **47**, **50**, **66**, **68**

American Hybrid-cross
(*Castanea spp.*)
26, **31**, **32**, **68**

Cottonwoods/Aspens

Eastern Cottonwood
(*Populus deltoides*)
26, **31**, **32**, **50**, **68**

Bigtooth Aspen
(*Populus grandidentata*)
26, **31**, 52, **68**

Swamp Cottonwood
(*Populus heterophylla*)
26, **31**, **32**, **50**, **68**

Quaking Aspen
(*Populus tremuloides*)
26, **31**, **32**, 34, 40, 50, **68**

Elms

American Elm
(*Ulmus americana*)
3, 24, **26**, **31**, **32**, **50**, **66**, **68**

Slippery Elm
(*Ulmus rubra*)
26, **31**, **50**, **68**

Hawthornes

Round-leaved Hawthorne
(*Crataegus chrysocarpa*)
26, 31, **32**, **68**

Cockspur Hawthorne
(*Crataegus crus-galli*)
26, 28, 30, **31**, 32, 36, 45, **56**, **66**, 68, 72

Frosted Hawthorne
(*Crataegus pruinosa*)
26, **31**, **32**, **68**

Dotted Hawthorne
(*Crataegus punctata*)
26, **31**, **32**, **68**

Fleshy Hawthorne
(*Crataegus succulenta*)
26, **31**, **32**, **68**

Hickories

Bitternut Hickory
(*Carya cordiformis*)
26, 31, 32, 68

Pignut Hickory
(*Carya glabra*)
26, 31, 32, 68

Shagbark Hickory
(*Carya ovata*)
17, 26, 31, 32, 34, 68

Mockernut Hickory
(*Carya tomentosa*)
26, 31, 32, 68

Maples

Boxelder
(*Acer negundo*)
26, 31, 32, 42, 50, 68

Black Maple
(*Acer nigrum*)
17, 26, 31, 32, 50, 66, 68

Red Maple
(*Acer rubrum*)
1, 2, 3, 5, 6, 7, 8, 10, 15, 17, 20, 21, 23,
24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 37,
40, 42, 43, 45, 47, 48, 50, 51, 53, 54, 55,
56, 57, 58, 59, 61, 63, 66, 68, 69, 72

Silver Maple
(*Acer saccharinum*)
2, 3, 6, 7, 15, 17, 21, 23, 24, 25, 26, 28,
29, 31, 32, 35, 37, 40, 41, 42, 47, 50, 51,
53, 55, 57, 66, 68

Sugar Maple
(*Acer saccharum*)
1, 2, 3, 6, 7, 8, 10, 15, 17, 18, 20, 21, 23,
24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35,
36, 37, 40, 41, 42, 43, 45, 48, 50, 51, 54,
55, 56, 57, 59, 61, 63, 66, 68, 72

Mountain Maple
(*Acer spicatum*)
8, 26, 31, 32, 50, 51, 68

Oaks

White Oak
(*Quercus alba*)
6, 10, 15, 17, 21, 24, 26, 29, 30, 31, 32,
33, 34, 50, 54, 55, 56, 57, 68, 72

Swamp White Oak
(*Quercus bicolor*)
6, 15, 24, 26, 29, 30, 31, 32, 36, 37, 50,
51, 55, 56, 68, 72

Scarlet Oak
(*Quercus coccinea*)
2, 6, 15, 17, 24, 26, 31, 32, 36, 37, 50,
55, 56, 57, 59, 68, 72

Chinkapin Oak
(*Quercus muehlenbergii*)
26, 31, 32, 68

Chestnut Oak
(*Quercus prinus*)
26, 31, 32, 50, 68

Northern Red Oak
(*Quercus rubra*)
2, 3, 8, 10, 17, 18, 21, 24, 25, 26, 28, 29,
31, 32, 33, 36, 37, 42, 45, 48, 50, 51, 54,
55, 56, 57, 59, 66, 68, 69, 72

Post Oak
(*Quercus stellata*)
10, 21, 26, 31, 32, 51, 68

Black Oak
(*Quercus velutina*)
6, 26, 31, 32, 50, 66, 68

Walnut

Butternut Walnut
(*Juglans cinera*)
17, 26, 31, 32, 50, 68

Black Walnut
(*Juglans nigra*)
6, 10, 17, 25, 26, 31, 32, 34, 42, 50, 68,
69

Other deciduous trees

American Hornbeam
(*Carpinus caroliniana*)
6, 15, 24, 26, 28, 31, 32, 36, 51, 66, 68,
69

Hackberry
(*Celtis occidentalis*)
6, 26, 31, 32, 36, 37, 56, 68

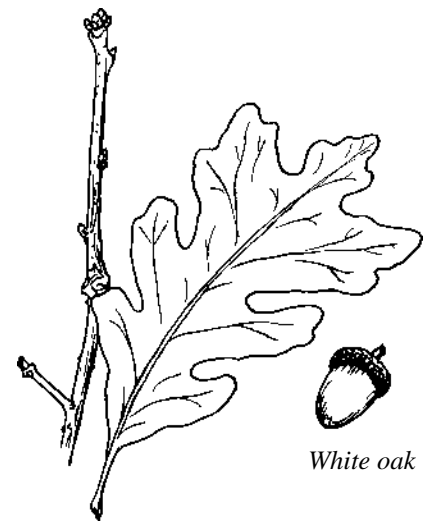
Redbud
(*Cercis canadensis*)
3, 6, 8, 10, 15, 16, 17, 18, 20, 21, 22, 23,
24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35,
36, 37, 40, 41, 42, 45, 47, 48, 50, 51, 53,
54, 55, 56, 57, 58, 59, 60, 61, 63, 66, 68,
69, 72

Flowering Dogwood
(*Cornus florida*)
3, 5, 6, 7, 8, 10, 11, 17, 18, 20, 21, 22,
23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34,
35, 36, 37, 41, 42, 23, 45, 47, 48, 50, 51,
52, 53, 54, 55, 56, 57, 59, 60, 63, 64, 66,
68, 69, 70, 72

Common Persimmon
(*Diospyros virginiana*)
3, 5, 6, 26, 31, 32, 68

American Beech
(*Fagus grandifolia*)
3, 6, 8, 10, 15, 17, 24, 25, 26, 31, 32, 34,
37, 42, 50, 51, 54, 55, 56, 57, 66, 68, 72

American Holly
(*Ilex opaca*)
3, 5, 7, 8, 11, 17, 18, 20, 22, 23, 25, 26,



28, 30, 31, 32, 33, 34, 36, 41, 42, 47, 50,
51, 52, 54, 56, 57, 59, 60, 63, 66, 68, 72

Sweetgum
(*Liquidambar styraciflua*)
3, 5, 6, 10, 15, 17, 18, 21, 24, 25, 26, 28,
29, 30, 31, 32, 36, 37, 42, 48, 50, 54, 55,
56, 57, 68, 69, 72

Tulip Tree (Yellow Poplar)
(*Liriodendron tulipifera*)
3, 5, 6, 10, 15, 17, 18, 21, 24, 26, 30, 31,
32, 34, 36, 42, 48, 50, 51, 54, 55, 56, 57,
68, 69, 72

Red Mulberry
(*Morus rubra*)
26, 31, 32, 42, 50, 68

Black Gum (Tupelo)
(*Nyssa sylvatica*)
5, 6, 17, 21, 25, 26, 28, 29, 31, 32, 33,
36, 37, 42, 45, 50, 54, 56, 59, 68, 69, 72

Eastern Hop Hornbeam
(*Ostrya virginiana*)
5, 24, 26, 31, 32, 50, 59, 68

American Sycamore
(*Platanus occidentalis*)
3, 8, 10, 17, 24, 26, 31, 32, 50, 54, 55,
57, 68,

Willow
(*Salix spp.*)
10, 12, 17, 20, 21, 23, 24, 26, 28, 31, 32,
33, 34, 37, 39, 41, 42, 45, 47, 48, 50, 51,
53, 54, 55, 56, 57, 66, 68, 69, 70, 72

Sassafras
(*Sassafras albidum*)
5, 26, 29, 31, 32, 34, 50, 68

American Mountain-ash
(*Sorbus americana*)
1, 10, 24, 26, 31, 32, 34, 41, 43, 50, 51,
54, 55, 58, 60, 66, 68

American Basswood
(*Tilia americana*)
6, 17, 26, 31, 32, 34, 51, 68

Native Shrubs

Dogwoods

Alternate-leaf Dogwood
(*Cornus alternifolia*)

21, **29**, 30, **31**, **32**, 34, 36, 37, 42, 45, 59, 60, **68**

Silky Dogwood
(*Cornus amomum*)

2, 8, 11, 16, **17**, **28**, **29**, **31**, 32, **36**, 42, 45, 48, 50, 54, 56, **61**, **68**

Gray Dogwood
(*Cornus racemosa*)

2, **17**, **28**, 29, **31**, 32, 36, 38, 42, 45, 48, 50, 56, **57**, **59**, **61**, **68**

Red-osier Dogwood
(*Cornus sericea*)

2, **3**, 8, 12, 17, 21, 24, 29, **31**, 32, 33, 34, 36, 42, 45, 48, 50, 55, 56, 57, **59**, 60, 63, **64**, 68, 72

Honeysuckles

American Fly Honeysuckle
(*Lonicera canadensis*)

11, **31**, **32**, 42, **66**, **68**

Swamp Fly Honeysuckle
(*Lonicera oblongifolia*)

31, **32**, 42, 51, **68**

Laurels

Sheep Laurel, Lambkill
(*Kalmia angustifolia*)

5, 9, **17**, 21, **29**, 30, **31**, **32**, 34, 42, **47**, **50**, 54, **57**, 60, **64**, **68**, 69, 72

Mountain Laurel
(*Kalmia latifolia*)

3, 4, 5, 7, 8, 9, 11, 12, 16, 17, **18**, 20, 21, 22, 24, 28, **29**, 30, 31, 32, 34, 35, 36, 37, 39, 40, 41, 42, 44, 45, 47, 48, 50, 53, 54, 55, 56, 57, **59**, 60, **61**, 63, 64, **66**, 68, 69, 70, 71, 72

Bog Laurel
(*Kalmia polifolia*)

9, 21, 24, **31**, 42, **47**, 50, **51**, **60**, **68**, 69

Maples

Striped Maple
(*Acer pensylvanicum*)

5, **17**, **31**, **32**, 34, 36, 37, 42, **50**, **51**, 54, **66**, **68**

Mountain Maple
(*Acer spicatum*)

31, **32**, **50**, **51**, **66**, **68**

Rhododendrons

Wild Honeysuckle
(*Rhododendron nudiflorum*)

20, **31**, 32, 34, 42, **51**, 57, 60, **66**, **68**, 72

Swamp Azalea
(*Rhododendron viscosum*)

17, **21**, 24, 28, 30, **31**, 32, 36, 37, 42, 45, 48, 50, 54, 55, **56**, **57**, **59**, 60, **61**, 63, **66**, 68, 69, 72

Sumacs

Staghorn Sumac
(*Rhus typhina*)

5, **17**, **21**, 30, **31**, 34, 42, **51**, **56**, **57**, **68**, **69**, 72

Shining Sumac
(*Rhus copallina*)

17, **21**, **31**, 42, **68**, 72

Smooth Sumac
(*Rhus glabra*)

17, **21**, **31**, 42, **68**, 72

Viburnums

Mapleleaf Viburnum
(*Viburnum acerifolium*)

5, 8, **18**, **21**, **29**, **31**, 32, 34, 42, 50, 51, 52, **57**, **66**, **68**, 72

Hobblebush
(*Viburnum alnifolium*)

21, **29**, **31**, 32, 34, 42, **68**

Witherod, Wild Raisin
(*Viburnum cassinoides*)

11, 21, **29**, **31**, **32**, 60, **64**, **68**, 72

Nannyberry
(*Viburnum lentago*)

11, **17**, **21**, **28**, **29**, 30, **31**, 32, 34, 42, 45, **57**, 68, 72

Arrowwood
(*Viburnum recognitum*)

2, 5, 8, 17, **18**, **21**, 24, **28**, **29**, 30, **31**, 32, 33, 34, 36, 37, 38, 42, 45, 48, 50, 51, 53, 54, 55, 56, **57**, **59**, 60, **61**, 63, 64, **66**, 68, 69, 72

American Cranberry Bush
(*Viburnum trilobum*)

2, 8, 11, 16, 17, 20, **21**, 24, **28**, **29**, 30, **31**, 32, 34, 38, 40, 42, 44, 45, 48, 50, 53, 54, 55, 56, **57**, 60, 63, **64**, **66**, 68, 69, 72

More Native Shrubs

Shadbush Serviceberry
(*Amelanchier canadensis*)

1, 2, 3, 5, 8, **11**, **16**, 17, **18**, 20, 21, 24, 28, **29**, 30, 31, 32, 34, 36, 37, 40, 42, 44, 45, 48, 50, 51, 52, 53, 54, 55, 56, 57, 59, 60, **61**, 63, **64**, **66**, 68, 69, 72

Winterberry
(*Ilex verticillata*)

17, **18**, 20, 21, 22, 24, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 44, 45, **48**, 50, 51, 53, 54, 55, 56, **57**, **59**, 60, **61**, 63, **64**, **66**, 68, 69, 70, 71, 72, 73

Witchhazel
(*Hamamelis virginiana*)

17, **18**, 20, 21, 24, 28, **29**, 30, **31**, 32, 34, 35, 36, 37, 42, **43**, 45, 48, 50, 51, 54, 55, 56, **57**, 60, **61**, 68, 69, 70, 71, 72, 73



Golden-winged warbler
with flowering dogwood



Shagbark hickory

Black Chokeberry
(*Aronia melanocarpa*)
29, 30, **31**, 32, 34, 42, 56, **68**, 72, 73

Jersey Tea
(*Ceanothus americanus*)
31, 32, 42, **68**

Leatherleaf
(*Chamaedaphne calyculata*)
5, 21, **31**, **32**, 54, 60

Summersweet or Sweet Pepperbush
(*Clethra alnifolia*)
2, 3, 4, 5, 8, 11, 12, 17, **18**, 20, 21, 22,
24, 28, 29, 30, **31**, 32, 33, 34, 36, 37, 39,
42, 45, 48, 50, 51, 53, 54, 55, 56, 57, **59**,
60, **61**, 63, 66, 68, 69, 72

Sweet Fern
(*Comptonia peregrina*)
5, 8, 24, 30, **31**, **32**, 34, **36**, 42, 54, 57,
60, **64**, **66**, 68, 69, 72

Bush Honeysuckle
(*Diervilla lonicera*)
8, 11, 16, **31**, 34, 42, 51, 53, 54, 55, 56,
57, 60, 68, 69

Labrador Tea
(*Ledum groenlandicum*)
7, 21, **31**, 42, 48, **50**, 54, 60, **64**, **68**, 69

Spicebush
(*Lindera benzoin*)
5, 8, **11**, 17, **21**, 22, **28**, **29**, **31**, **32**, 33,
34, 36, 42, 45, **50**, **51**, 54, **55**, 56, **57**, **59**,
60, 63, **64**, **66**, **68**, 69

Huckleberry, Maleberry
(*Lyonia ligustrina*)
31, 34, **59**, **68**

Bayberry
(*Myrica pensylvanica*)
2, 3, **5**, 8, 11, 17, **18**, 20, 21, 24, 28, 29,
30, 31, 32, 33, 34, 36, 37, 38, 41, 42, 45,
47, 48, 50, 51, 53, 54, **55**, 56, **57**, 60, 63,
64, **66**, 68, 69, 72

Mountain Holly
(*Nemopanthus mucronata*)
5, 28, **31**, **47**, **51**, 54, 60, **68**, 69, 72

Shrubby Cinquefoil
(*Potentilla fruticosa*)
2, 3, 8, 17, **18**, 21, 24, 28, 29, 30, **31**, 32,
37, 40, 42, 45, 48, 50, 56, 57, 60, 63, 68,
69, 72

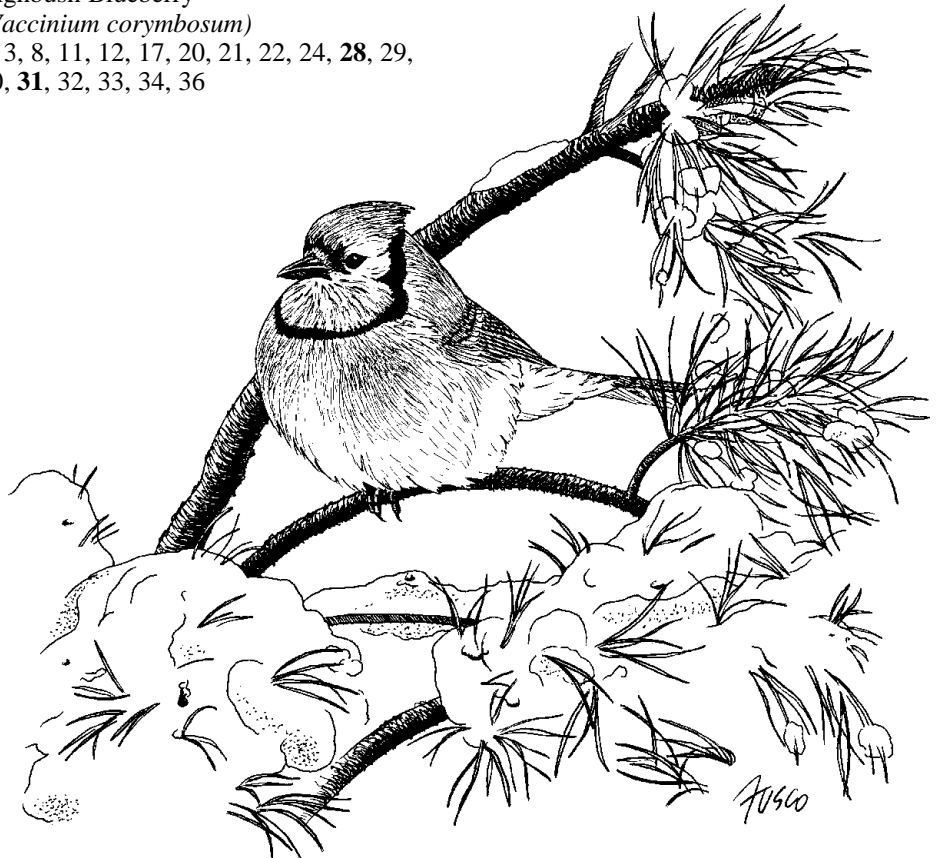
Elderberry
(*Sambucus canadensis*)
17, **21**, **28**, **31**, 32

Meadowsweet Spiraea
(*Spiraea latifolia*)
31, 32, 42, 51, 60, **66**, **68**

Bladdernut
(*Staphylea trifolia*)
31, **47**, **50**, **66**, **68**

Canada Yew
(*Taxus canadensis*)
21, 24, 31, 32

Highbush Blueberry
(*Vaccinium corymbosum*)
2, 3, 8, 11, 12, 17, 20, 21, 22, 24, **28**, 29,
30, **31**, 32, 33, 34, 36

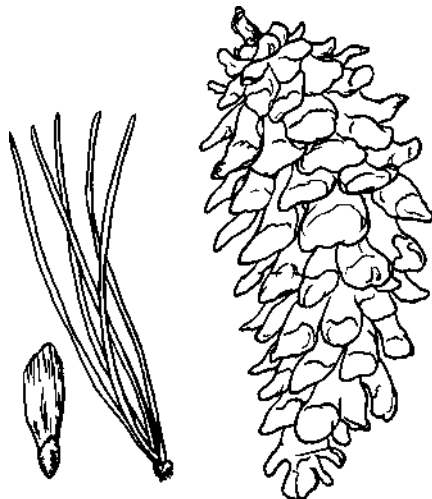


Blue jay on white pine

Connecticut Growers of Native Trees and Shrubs

(**indicates the nursery has indicated it is strictly a wholesaler)

1. **Arthur Boglisch & Sons**
11 Roberts Street
Windsor Locks, CT 06096
860-623-1704
2. **Robert Baker, Inc.**
1700 Mountain Rd.
West Suffield, CT 06093
860-668-7371
3. **Bell Nurseries, Inc.**
1301 Hartford Tpke.
North Haven, CT 06473
203-248-5086 / 281-0164
4. **Acer Gardens**
447 Winthrop Road
Deep River, CT 06417
860-526-9056
5. **Broken Arrow Nursery**
c/o R. A. Jaynes
13 Broken Arrow Road
Hamden, CT 06518
203-288-1026
6. **B. F. Burton Landscapes, Inc.**
95 Botsford Hill Road
Roxbury, CT 06783
860-350-9022
7. **A.J. Vicino and Sons Nursery**
259 New Britain Avenue
Rocky Hill, CT 06067
860-529-1304
8. **Designs by Lee, Inc.**
129 Interlaken Road
Stamford, CT 06903
203-628-5888
9. **Chappell Nursery**
1114 Trumbull Highway
Lebanon, CT 06249
860-379-2626
10. **Cheshire Nursery, Inc.**
c/o M. Cohen
1317 South Main St.
Cheshire, CT 06410
203-272-3228
11. **Cortina Gardens**
25 Bridgewater Road
New Milford, CT 06776
860-354-8120
12. **Clinton Nurseries, Inc.**
114 Main Street
Clinton, CT 06413
860-669-8611
13. ***D'Addio Garden Center**
320 Washington Avenue
North Haven, CT 06473
203-239-7893
14. **Evergreen Acres Tree Farm and Nursery**
464 Windham Avenue
Colchester, CT 06415
15. **East Haven Landscape Products**
10 Mill St.
East Haven, CT 06512
203-467-6260
16. **Evergreen Nursery, Inc.**
c/o F. Kuhr
567 Woodruff St.
Southington, CT 06489
860-628-0325
17. **Fieldstone Nursery**
c/o Douglas Baldwin
48 Merryall Road
New Milford, CT 06776
860-354-3116
18. **Great Falls Nursery**
348 Housatonic River Rd.
P.O. Box 216
Salisbury, CT 06068
19. **Evergreen Nursery Walters and Son**
32 Walnut Hill Road
Bethel, CT 06801
20. **High Ridge Nursery**
1854 High Ridge Road
Stamford, CT 06903
203-329-9957
21. **Gloria's Garden Center**
258 Boston Post Rd.
Milford, CT 06460
203-877-2776
22. **Greenwich Landscaping Co.**
c/o D. Gospodinoff
732 North St.
Greenwich, CT 06830
203-869-1022
23. **Haviland Farm Market**
8 Cedar Hill Road
Brookfield Center, CT 06805
203-775-1149
24. **Holdridge Farm Nursery**
Route 117
P.O. Box 29
Ledyard, CT 06339
860-464-8400
25. **Hilltop Gardens of Huntington**
245 Walnut Tree Hill Rd.
Huntington, CT 06484
203-929-0456
26. **Hockings Garden Center**
1200 Durham Road
Guilford, CT 06437
203-458-2518
27. **Hut Nursery**
c/o Peter Hut
43 Crown Lane
Greenwich, CT 06831
203-622-0195
28. **James S. Hosking Nursery**
P.O. Box 6, 114 Porter
Watertown, CT 06795
860-274-8889
29. **Hop River Nursery**
251 Hope River Road
Bolton, CT 06040
860-646-7099
30. **Kenneth Twombly Nursery**
163 Barn Hill Rd.
Monroe, CT 06468
203-261-2133
31. **Kimberly Farm Nursery**
259 Frogtown Road
New Canaan, CT 06840
203-966-8210
32. **Kent Horticultural Services**
Route 7
P.O. Box 128
Kent, CT 06757
860-927-3480

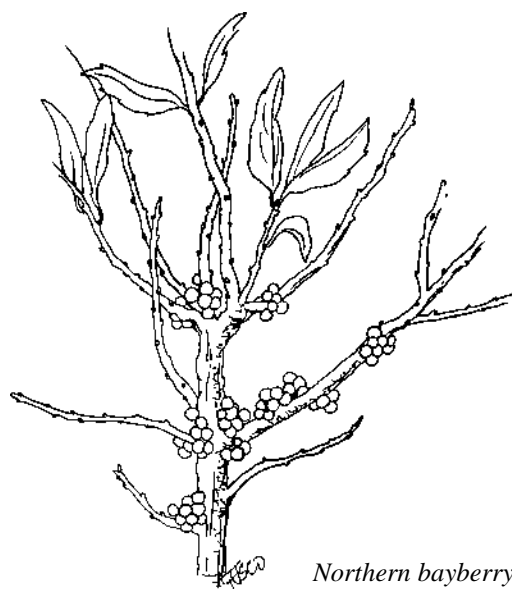


White pine

33. **Kennedy Nursery, Inc.**
201 Clapboard Ridge Road
Greenwich, CT 06831
203-869-3152
34. **Merriman Tree Farm and Nursery**
Route 69
455 Milford Street
Burlington, CT 06013
860-675-3480
35. **Jay's Nursery**
577 Park Road
Waterown, CT 06796
860-274-1465
36. ****Millane Nurseries, Inc.**
Wholesale Only
604 Main Street
Cromwell, CT 06416
860-635-5500
37. **Millane Nurseries, Inc.**
Retail
604 Main Street
Cromwell, CT 06416
860-635-5500
38. **Kogut's Florist and Nursery**
Yale Avenue
Meriden, CT 06450
203-686-0252
39. **Ceasar's Nursery**
883 Federal Road
Brookfield, CT 06804
203-775-2944
40. **Litchfield Horticultural Center**
258 Beach Street
Litchfield, CT 06759
860-567-3707
41. **Nash's Garden Center**
c/o P. Hourihan
215 Wauregan Rd.
Danielson, CT 06239
860-774-0412
42. **Ballek's Garden Center**
Maple Avenue
East Haddam, CT 06423
860-873-8878
43. **Northwood Tree Farm**
c/o H. Semrow
270 Wolcott Rd.
Wolcott, CT 06716
860-879-2423
44. **Treat's Trees**
c/o Jonathon Treat
87 Bolton Center Road
Bolton, CT 06043
860-649-5184
45. **Planters' Choice**
c/o C. Newman
140 Huntingtown Rd.

Newtown, CT 06470
203-426-4037

47. **Prospect Nursery & Garden**
246 New Haven Road
Prospect, CT 06712
203-758-4909
48. **Pride's Corner Farm, Inc.**
122 Waterman Rd.
Lebanon, CT 06249
860-642-7535
49. **Ridolfo Nursery**
c/o Giacomo Ridolfo
5 Grace St.
Windsor, CT 06095
860-688-2959
50. **River Run Nursery**
P.O. Box 155
309 Otrobando Avenue
Yantic, CT 06389
860-887-2092
51. **Riverside Nursery**
56 River Road
Collinsville, CT 06022
52. **Rivezzi Garden Center**
Cedar Lake Road
PO Box 888
North Branford, CT 06471
53. **Reynold's Farms Nurseries**
V.Decrio
P.O. Box 30
23 Richards Avenue
South Norwalk, CT 06854
54. **Salem Country Gardens**
385 New London Rd.
Route 85
Salem, CT 06415
860-859-2508
55. **Salisbury Garden Center**
Route 44
167 Canaan Rd.
Salisbury, CT 06068
860-435-2439
56. **Shemin Nurseries, Inc.**
1081 King St.
Greenwich, CT 06830
203-531-6700
57. **Spruce Brook Nursery**
Route 118 and Wheeler Road
Litchfield, CT 06759
860-496-1234
58. **Stanley Swider Tree Farm**
699 West Rd.
Salem, CT 06420
860-859-1750



Northern bayberry

59. **Stonegate Gardens, Inc**
D.Ford
PO Box 810
Granby, CT 06035
860-653-3835
60. ****Summer Hill Nursery, Inc.**
Wholesale Only
c/o J. Johnson
Summer Hill Rd.
Madison, CT 06443
203-421-3055
61. **Somers Sun Nursery**
392 Four Bridges Road
Somers, CT 06071
860-763-3541
62. **Sunset Nurseries**
Greg Panu
Route 193, PO Box 6
Thompson, CT 06277
860-923-3711
63. **Samuel F. Bridge, Jr.**
437 North Street
Greenwich, CT 06277
203-869-3418
64. **Town and Country Nursery**
1036 Saybrook Road
P.O. Box 121
Haddam, CT 06438
860-649-2377
65. **Village Farmer**
Sidney Waxman
51 Codfish Falls Road
Storrs, CT 06268
860-429-4594

66. **Vasileff Nurseries, Inc.**
740 North St.
Greenwich, CT 06830
203-869-0242

67. **UCONN Nursery**
Attn: Steve Olsen
1375 Storrs Road
Storrs, CT 06068

68. **Warner's Nursery Center**
76 Riverside Road
P.O. Box 662
Simsbury, CT 06070
860-651-0204

69. **Woodland Gardens**
168 Woodland Street
Manchester, CT 06040
860-643-8474

70. **Weston Gardens, Inc.**
c/o Craig Smith
Goodhill Rd.
Weston, CT 06880
203-227-3871

71. **Winterberry Nursery**
c/o P. Cumpstone
104 Parker Hill Rd. Ext.
Killingworth, CT 06417
860-663-2747

72. **Young's Nurseries, Inc**
Hans Kuring
211 Danbury Road
Wilton, CT 06897
203-762-5511

73. **Natural Attraction Project, Inc.**
Denise Ciastko
248 Pond Meadow Rd
Westbrook, CT 06498
860-399-2587

Native Trees and Shrubs for Wildlife Food and Cover

Summer Foods for Wildlife

Red Mulberry (*Morus rubra*)
Highbush Blueberry (*Vaccinium corymbosum*)
Shadbush Serviceberry (*Amelanchier canadensis*)
Black Cherry (*Prunus serotina*)
Choke Cherry (*Prunus virginiana*)
Pin Cherry (*Prunus pensylvanica*)

Fall Foods for Wildlife

Flowering Dogwood (*Cornus florida*)
Hackberry (*Celtis occidentalis*)
Common Elderberry (*Sambucus canadensis*)
Silky Dogwood (*Cornus amomum*)
Arrowwood Viburnum (*Viburnum recognitum*)
Nannyberry Viburnum (*Viburnum lentago*)
Eastern Red-cedar (*Juniperus virginiana*)
Hawthornes (*Crataegus spp.*)
Hickories (*Carya spp.*)
Oaks (*Quercus spp.*)
Walnuts (*Juglans spp.*)
American Beech (*Fagus grandifolia*)
American Filbert / Hazelnut (*Corylus americana*)

Winter Foods for Wildlife

Northern Bayberry (*Myrica pensylvanica*)
Winterberry (*Ilex verticillata*)
Highbush Cranberry Viburnum (*Viburnum trilobum*)
Mapleleaf Viburnum (*Viburnum acerifolium*)
Eastern Red Cedar (*Juniperus virginiana*)
Ground Juniper (*Juniperus communis*)
American Holly (*Ilex opaca*)
Staghorn Sumac (*Rhus typhina*)
Black Chokeberry (*Aronia melanocarpa*)



Northern saw-whet owl in
Eastern hemlock

Winter Cover for Wildlife

Eastern Red-cedar (*Juniperus virginiana*)
Northern White Cedar (*Thuja occidentalis*)
White Pine (*Pinus strobus*)
American Holly (*Ilex opaca*)
Atlantic White Cedar (*Chamaecyparis thyoides*)
Black Spruce (*Picea mariana*)
Eastern Hemlock (*Tsuga canadensis*)

Spring Foods for Wildlife

Silver Maple (*Acer saccharinum*)
Red Maple (*Acer rubrum*)
American Elm (*Ulmus americana*)

Trees and Shrubs for Butterflies

Meadowsweet Spiraea (*Spiraea latifolia*)
Sweet Pepperbush (*Clethra alnifolia*)
Pinxterbloom Azalea (*Rhododendron nudiflorum*)
Swamp Azalea (*Rhododendron viscosum*)

Connecticut's State Tree: White Oak (Quercus alba), also known as the Charter Oak

Description:

This deciduous tree grows up to 75-100 feet tall. It has grayish white bark and evenly lobed leaves, and it grows on a variety of site conditions. White oak produces acorns, which are highly preferred by deer, turkeys, and squirrels.

Connecticut's State Flower: Mountain Laurel (Kalmia latifolia)

Description:

This evergreen shrub grows from 2 to 20 feet tall. It usually grows in the understory and typically in drier soils. Mountain laurel produces showy flowers in early summer, with colors ranging from white to red. The shrub is propagated widely by the nursery industry; many cultivars have been developed by Dr. Richard Jaynes of Broken Arrow Nursery in Hamden.

Wildlife Food Habits

Backyard Songbirds:

American Robin, Northern Catbird

Summer foods: serviceberry (*Amelanchier canadensis*), red mulberry (*Morus rubra*), blueberries (*Vaccinium corymbosum*, *V. angustifolium*)

Fall foods: flowering dogwood (*Cornus florida*), silky dogwood (*Cornus amomum*), common elderberry (*Sambucus canadensis*), arrowwood viburnum (*Viburnum recognitum*), nannyberry viburnum (*Viburnum lentago*), black cherry (*Prunus serotina*)

Winter /spring migration foods: winterberry (*Ilex verticillata*), highbush cranberry viburnum (*Viburnum trilobum*), staghorn sumac (*Rhus typhina*), northern bayberry (*Myrica pensylvanica*), American holly (*Ilex opaca*)

Winter cover: eastern red cedar (*Juniperus virginiana*), white pine (*Pinus strobus*), northern white cedar (*Thuja canadensis*), eastern hemlock (*Tsuga canadensis*), black spruce (*Picea mariana*)

Interior Forest Songbirds:

Wood Thrush, Scarlet Tanager

Summer foods: serviceberry (*Amelanchier canadensis*), red mulberry (*Morus rubra*), blueberries (*Vaccinium corymbosum*, *V. angustifolium*)

Fall foods: flowering dogwood (*Cornus florida*), silky dogwood (*Cornus amomum*), common elderberry (*Sambucus canadensis*), arrowwood viburnum (*Viburnum recognitum*), nannyberry viburnum (*Viburnum lentago*), black cherry (*Prunus serotina*)

Spring migration foods: winterberry (*Ilex verticillata*), highbush cranberry viburnum (*Viburnum trilobum*), staghorn sumac (*Rhus typhina*), American holly (*Ilex opaca*)

Eastern chipmunk with acorn



About This Document

This document is the PDF version of the original printed publication. Page numbers when viewing on screen do not necessarily correspond to the printed page numbers.

All pictures, illustrations, and graphics are copyright protected.



State of Connecticut
Department of Environmental Protection
Bureau of Natural Resources
Wildlife Division

Links shown on this supplement are not activated. Go to the Internet site for active links.



Connecticut Botanical Society

Search [Advanced Search](#)

Gardening with Native Plants

Trees & Shrubs

Other Types of Plant

Photos & Information

- [Wildflowers](#)
- [Ferns](#)
- [Rare Plants](#)
- > [Gardening with Native Plants](#)
- [Plant ID Guides](#)
- [Links](#)

The Society

- [Home](#)
- [Field Trips](#)
- [Meetings](#)
- [Newsletter](#)
- [Membership](#)
- [Get Involved](#)

Don't take plants from the wild!

Nursery-propagated plants are available for every species listed on this page. There is no reason to despoil wild areas by removing plants. [Statement on collecting plants.](#)

Shrubs

Most of these shrubs are covered also in University of Connecticut's excellent [Plant Database](#), which has detailed descriptions and lots of photos. Click on the "UConn Plant Database" link to go to the page for that plant.



Red chokeberry (*Aronia arbutifolia*, *Photinia pyrifolia*)

☀️ ☀️ 🌑 dry to moist soil zones 5-9

This is a quietly handsome shrub that thrives in a wide range of conditions. It has clusters of white flowers in the spring, followed by bright red berries that attract birds. Its brilliant red fall foliage ends the year with a bang. 5-10' tall. [UConn Plant Database.](#)



Sweet pepperbush (*Clethra alnifolia*)

☀️ ☀️ average to moist soil zones 3-9

With fragrant white flowers in mid-summer, sweet pepperbush is a valuable addition to the landscape. The flowers are a magnet for butterflies and bees. 6-9' tall. Prefers acidic soil; tolerates ocean spray and road salt. [UConn Plant Database](#).



Winterberry holly (*Ilex verticillata*)

☀️ ☀️ moist to wet soil zones 4-9

The glory of this shrub is its berries. They turn red in early fall and continue to provide cheer through most of the winter. An ideal shrub for pond-side plantings; winterberry loves wet soil, and it looks beautiful reflected on the water. Both male and female bushes are needed to get berries; one male is enough for half-a-dozen females. Unlike most hollies, winterberry is deciduous. Typically 6-10'. [UConn Plant Database](#).



Mountain laurel (*Kalmia latifolia*)

☀️ ☀️ ● average to moist soil zones 5-9

Mountain laurel is Connecticut's state flower. In spring, its pale pink flowers attract hummingbirds. The leaves stay green all winter; the shrub looks good even in very cold weather (unlike evergreen rhododendrons, which curl up their leaves and look like they're shivering). Mountain laurel will grow in full sun if it has consistently moist soil. In full shade, its form is tall and loose; the bare, contorted branches are picturesque. 5-12' tall. [UConn Plant Database](#).



Bayberry (*Morella pensylvanica*, syn. *Myrica pensylvanica*)



dry to moist soil

zones 3-7

Bayberry is a tough shrub. It grows in nearly any soil, from heavy clay to infertile sand. It tolerates salt, making it good for seaside and heavily-salted roadside. Its leaves and berries are aromatic. The gray, waxy berries (used in bayberry candles) are attractive in winter, and they provide food for birds. Bayberry has fine-textured foliage and an interesting branch structure. 6-10'. [UConn Plant Database](#).



Rosebay, Great Laurel (*Rhododendron maximum*)



moist soil

zones 4-9

With large clusters of pink or lavender flowers, rosebay is one of our showiest native shrubs. The large, oval leaves are evergreen. The twisty branches provide another ornamental feature. Rosebay dislikes hot, dry locations; it does best in morning sun and afternoon shade. 6-15'. [UConn Plant Database](#).



Pinxterbloom azalea (*Rhododendron periclymenoides*, syn. *Rhododendron nudiflorum*)



dry to moist soil

zones 4-9

In spring, the pinxterbloom azalea puts out fragrant flowers in pink, lavender, or white. The trumpet-shaped flowers have long stamens, giving them a festive look. Pinxterbloom is a tolerant shrub -- unlike most members of the *Rhododendron* genus, it will grow in sandy, rocky, or dry soil. Typically 4-6'. [UConn Plant Database](#).



Swamp azalea (*Rhododendron viscosum*)



moist to wet soil

zones 4-9

In summer, the swamp azalea has white flowers with a delightful, spicy fragrance. The flowers attract hummingbirds. True to its name, swamp azalea enjoys a soggy spot -- probably the only azalea that does. 3-7' tall.

Fragrant Sumac (*Rhus aromatica*)

dry to average

zones 4-9

Fragrant sumac thrives in poor soil and hot, dry locations. It spreads by suckers and by stolons, so it can form a large colony. These traits make it an excellent choice for preventing erosion on steep banks. The leaves are aromatic; they turn a good red in fall. 3-6' tall. [UConn Plant Database](#).

**Highbush blueberry (*Vaccinium corymbosum*)**

average to moist

zones 3-8

Highbush blueberry is used in commercial blueberry farming. It's a good addition to the yard, and not just for its delicious fruit. In early summer, it has urn-shaped flowers in pale pink or white. In fall, its foliage presents a range of colors, from yellow to red to burgundy. During the growing season, its dense, rounded shape and fine-textured foliage are attractive; in winter its rusty red or yellow-green bark becomes prominent. 6-10' tall. [UConn Plant Database](#).

**American highbush cranberry (*Viburnum trilobum*, syn. *Viburnum opulus* var. *americanum*)**

average to wet

zones 2-7

American highbush cranberry is a very easy-to-grow shrub that is decorative for most of the year. In late spring, it has flat clusters of white flowers. In late summer, the red berries appear; they can persist through the winter. The berries are edible to birds and humans -- they make good preserves. The fall foliage is yellow, red, or red-purple. American highbush cranberry ought to be more widely planted; it is both prettier and more adaptable than the commoner European highbush cranberry (*Viburnum opulus* var. *opulus*). 8-12' tall. All of Connecticut's native *Viburnums* are good landscape shrubs: mapleleaf viburnum (*Viburnum acerifolium*), hobblebush (*V. alnifolium*), nannyberry (*V. lentago*), possum haw (*V. nudum*), black haw (*V. prunifolium*), arrowwood (*V. dentatum*), and downy arrowwood (*V. rafinesquianum*). [UConn Plant Database](#).

Trees

Most of these trees are covered also in University of Connecticut's excellent [Plant Database](#), which has detailed descriptions and lots of photos. Click on the "UConn Plant Database" link to go to the relevant page.



Red maple (*Acer rubrum*)



dry to wet

zones 4-9

Red maple makes a beautiful shade tree or street tree. This maple has red flowers in early spring, and brilliant, clear red foliage in fall. The silvery bark is handsome year-round. Red maple is a fairly fast-growing tree. 40-70' tall. [UConn Plant Database](#).



Downy serviceberry, downy juneberry (*Amelanchier arborea*)



dry to moist

zones 4-9

Downy serviceberry is a graceful small tree or large shrub. It has clusters white flowers in spring. Its edible fruits taste a bit like blueberries; they are loved by birds. Beautiful fall foliage in shades of yellow, orange, and red. The slender, curving trunks with light-gray bark are attractive in winter. 20-25' tall. [UConn Plant Database](#).

River birch, black birch (*Betula nigra*)



average to wet

zones 4-9

River birch is an excellent large landscape tree. The bark ranges from tan to cinnamon brown in color; its habit of peeling in sheets is attractive. Like many other birches, river birch often has several trunks, forming a handsome clump. Unlike the more commonly-planted white birch, river birch is seldom troubled by insect pests, and it tolerates summer heat well. 40-70'. [UConn Plant Database](#).



American hornbeam, ironwood (*Carpinus caroliniana*)



average to wet

zones 3-9

American hornbeam is a pleasing small tree, with attractive blue-green foliage and good fall color. The trunk has subtle ripples, as if there were muscles bulging beneath the bark; the tree is sometimes called musclewood. In the wild, it usually grows along rivers or streams, and it will tolerate occasional

flooding. Birds enjoy the fruit. 20-40' tall. [UConn Plant Database](#).

Hackberry, sugarberry (*Celtis occidentalis*)



very dry to moist zones 4-9

Hackberry is a fast-growing shade tree that is exceptionally tolerant of adverse conditions. It withstands soggy soil or extreme drought, clay or sandy soil, urban pollution, and strong wind. Its roots grow deep; the absence of shallow roots mean it can be planted next to walkways and not cause heaving. The edible berries are said to taste like dates; they are relished by birds. 40-60'. [UConn Plant Database](#).



Redbud (*Cercis canadensis*)



average to moist zones 4-9

Redbud is valued for its showy, deep-pink flowers, which appear in spring before the tree leafs out. It blooms heavily from a young age. The broad, heart-shaped leaves are also pleasing. Redbud makes an effective companion for flowering dogwood, as it blooms at the same time and enjoys the same growing conditions. (Redbud is, however, somewhat more adaptable than dogwood to less-than-perfect conditions.) 25-30'. [UConn Plant Database](#).



Pagoda dogwood, green osier (*Cornus alternifolia*)



moist zones 5-9

The pagoda dogwood gets its name from its horizontal branching habit, which gives the tree a tiered look. This distinctive form makes the pagoda dogwood a good specimen tree; it can also add variety to mixed plantings or woods. Its flowers aren't as showy as those of the flowering dogwood, but the fruit is ornamental. As it ripens, the fruit turns first red then blue-black; the stalks are coral-colored. The fruit is popular with birds (which unfortunately means that it doesn't stay on the tree very long). Pagoda dogwood has fairly nice fall foliage in red to purple-red. The tree does not like hot dry spots, though it tolerates full sun if the soil is reliably moist. Mulching will help keep the soil cool and moist. 15-25'. [UConn Plant Database](#).



Flowering dogwood (*Cornus florida*)



moist

zones 5-8

Flowering dogwood is an exceptionally ornamental tree year-round. In spring, it has large white flowers with four distinctively notched, petal-like bracts. The leaves are a nice dark green in summer, and a beautiful red to purple in fall; flowering dogwood holds its fall color for a long period. The shiny red fruit is also attractive, and it provides important winter food for wildlife. In winter, the tree shows off its lovely structure -- low, gracefully curved branches with light-colored bark. While flowering dogwood is susceptible to anthracnose and borers, proper growing conditions minimize the risk. Wet leaves are more vulnerable to anthracnose infection, so a sunny location with good air circulation is best. Consistently moist soil is important, especially for trees growing in full sun. (Mulching the soil is an easy way to maintain soil moisture.) Slightly acidic soil high in organic matter is preferred. Read more about [anthracnose in dogwoods](#) at this Cornell University site. 20-30'. [UConn Plant Database](#).



Sour gum, black gum (*Nyssa sylvatica*)



average to wet

zones 5-9

Sour gum is one of the very best trees for fall color. The show starts as early as mid-summer, with a few leaves turning orange or red. By fall the whole tree is a blazing mix of warm colors, and the color lasts a long time. In summer the foliage is glossy dark green. Sour gum grows fastest if it has fertile, slightly acidic, moist soil, but it will grow in anything except alkaline or extremely dry soil. Salt tolerant. 40-60'. [UConn Plant Database](#).



American hop hornbeam, ironwood (*Ostrya virginiana*)



dry to moist

zones 4-9

American hop hornbeam is a graceful medium-small tree. Mature trees have a pleasing rounded shape, with drooping lower branches. The name comes from the decorative, papery fruits, which resemble hops. Hophornbeam is an excellent choice for a dry woodland; once established, it is highly drought-tolerant. 30-40'. [UConn Plant Database](#).



Fire cherry, pin cherry (*Prunus pensylvanica*)



dry to moist

zones 4-8

Fire cherry is one of the first trees to appear after a forest fire, as its seeds resist burning and the tree tolerates the harsh, exposed conditions of burned land. In the landscape, it does well in sunny locations, where it will tolerate poor soil, dry soil, and strong winds. It's a fast-growing small tree with delicate white flowers in spring, followed by bright red fruit. The smooth, red-brown bark is appealing. Fall color is yellow to red. 25-35'.

White oak (*Quercus alba*)



dry to average

zones 4-9

Connecticut's state tree, white oak is a beautiful and majestic tree. White oaks planted in the open develop a broad crown, with many branches nearly horizontal. The foliage is dark red to reddish-purple for a long period in fall. White oaks can live for centuries; planting one is an easy way to earn the gratitude of future generations. Oaks in general are excellent trees for wildlife -- they attract not just squirrels, but also foxes, deer, porcupines, rabbits, and many species of birds. 50-80'. [UConn Plant Database](#).



Staghorn sumac (*Rhus typhina*)






dry to average

zones 4-8

Staghorn sumac is a resilient small tree with many ornamental attributes. Its large compound leaves bring a tropical effect to the landscape. Fall color is a brilliant red, almost pink. Female plants have attractive clusters of fuzzy, dark red berries through fall and winter. Spreading by root suckers allows staghorn sumac to form a pleasing clump; cut off wayward shoots to maintain the desired clump size. Staghorn sumac is widely planted as an ornamental in Europe; it should be better appreciated in its homeland. It tolerates heat, drought, pollution, and very infertile soil -- virtually anything except soggy soil. 15-25'. [UConn Plant Database](#).

Notes on Garden Conditions

Light:

-  Full sun -- more than five hours of direct sun per day.
-  Part shade -- two to five hours of direct sun, or all-day dappled sun, as from sunlight shining through open trees.
-  Full shade -- less than two hours of direct sun per day.

Soil moisture: "Average" soil moisture describes typical conditions for Connecticut. "Dry," here, means soil that dries fairly quickly after a rain, or soil dried out by shallow tree roots -- not desert conditions.

Hardiness zones: These describe the plant's tolerance of winter cold. Here is one site where you can look up your [hardiness zone](#). All plants listed here are hardy throughout Connecticut, which is in zones 5 and 6.

Height: Heights are given in feet ('). To convert to meters, multiply feet by 0.3.

Sources of information on this page.

©2002 by Connecticut Botanical Society and Janet Novak. Aronia arbutifolia photo © USDA, NRCS, courtesy of [The PLANTS Database](#). Other images ©2000-2002 Janet Novak, Eleanor Saulys, Arie Tal, Emma Craib. All rights reserved. Last updated February 15, 2003. Report errors, comments and suggestions to [Janet Novak, Webmaster](#).



University of
Connecticut
College of Agriculture
and Natural Resources
Cooperative Extension System



"Connecticut Natives for the Garden - Shrubs"

Copyright © 2003 by Janet Novak, Emma Craib, Arieh Tal, and Eleanor Saulys,
Connecticut Botanical Society. Used with permission.

"How to Plan a Garden"

Used with permission by PageWise Permissions.