Using Beneficial Plants - A Homeowner's Guide

BayScapes are environmentally sound landscapes benefiting people, wildlife and Chesapeake Bay. BayScaping advocates a "holistic" approach through principles inspired by the relationships found in the natural world.



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Livable landscapes

Our landscape history began when the first settlers arrived in the New World. The colonists brought many plants from their homeland and created landscapes that imitated the European-style gardens with which they were familiar. Three centuries later, the American yard is still dominated by European (primarily English) elements of landscape design. An expansive lawn, symmetrically planted and shaped trees and shrubs, and profuse flower beds of primarily exotic plants are characteristic of this landscape tradition.

Today, few of us have the time or resources needed to maintain a formal, European-style landscape. As a result, people are exploring attractive

alternatives to traditional landscapes, and many have responded with a more natural, relaxed looking yard that uses a variety of beneficial plants. This style of landscaping has different names. In the Bay region, it is called BayScaping, due to the many ecological benefits such landscapes provide for Chesapeake Bay.

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What are beneficial plants?

Beneficial plants are plants that require minimal maintenance-such as trimming, watering and fertilizer or pesticide applications-because they are well adapted to local climate and soil types. Beneficial plants begin with native, or indigenous species. Although even botanical experts disagree on a formal definition of a native plant, for the purpose of this guide and the BayScapes principles, we shall define it as a tree, plant, shrub, vine, or ground cover that would have been present when Christopher Columbus discovered America. Many horticultural varieties and imported plants are also deemed beneficial if they have few maintenance requirements and are not invasive.

In the Bay region, the primary habitats where native plants can be found include ancient forests, second-growth forests, wetlands, freshwater hardwood swamps, dunes, open meadows, mountain slopes and grasslands.

In an essay praising native plants, David Northington of the National Wildflower Research Center says, "Using commercially grown native plants creates new design opportunities; native plants provide seasonal color, and vary in appearance in response to natural fluctuations in annual temperature and precipitation patterns. If a more formal, manicured look is desired, native shrubs and trees and many native ornamental grasses and even herbaceous wildflowers can be part of a more static and structured design plan. When used

in such a formal landscape, however, native plants still provide many of the same advantages found in less formal, naturalistic landscapes: lower water use, greater hardiness, reduced chemical dependence, and even increased wildlife attraction."

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How can beneficial plants help the Bay?

As rain washes over the land, it carries nutrients and chemicals from our yards to stormdrains and groundwater and, ultimately, Chesapeake Bay. Because beneficial plants require less fertilizer and pesticides, their use in the landscape reduces pollutants carried by rainwater. Therefore, by planting beneficial plants at home, we can make a meaningful contribution to the restoration of local waterways and Chesapeake Bay.

Beneficial plants also improve wildlife habitat. Since many beneficial plants are also native plants, local birds, mammals and other wildlife have come to depend upon them for fruits, nuts and seeds. These plant communities also provide breeding and nesting sites. These communities have become especially important in the Bay watershed, where each day natural areas are destroyed to make room for more people.

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What about invasive plants?

Invasive plants displace naturally occurring vegetation and, in the process, upset nature's balance and diversity. Invasives share the following characteristics:

- rapid growth and prolific reproductive capabilities
- highly successful seed dispersal, germination and colonization processes
- rampant spreading that takes over native species
- are very costly to control

One of the most familiar invasive plants is kudzu vine, which has been so prolific that it now covers more than 7 million acres in the Southeast United States. Another invasive plant commonly sold by nurseries in the Bay region is purple loosestrife (*Lythrum salicaria* or *Lythrum virgatum*). Popular for its spectacular bloom, it unfortunately has a tendency to completely take over river floodplains, wet meadows and marshland. In the process, it out-competes most of the native vegetation. There are many more invasive species, some of which are listed below. Don't be surprised if you find a few in your landscape.

INVASIVE PERENNIAL PLANTS					
Common/Scientific Name	Туре	Description			
Bamboo Phylostachys aubea	Small, accent tree	Grows in variety of habitats; spread by rhyzomes, rarely by seed			
Japanese Honeysuckle Lonicera Japonica	Climbing vine	Grows in variety of habitats; semi-evergreen			
Multiflower Rose Rosa multiflora	Climbing vine	Grows generally in upland habitats; spreads by root tips and seeds			
Purple Loosestrife Lythrum salicaria	Flower	Grows in open wetlands; heavy seed output			
Tree of Heaven Alanthus altissima	Tree	Grows in variety of upland habitats; spreads by cloning and seeds			
Wysteria Wysteria sinensis	Climbing vine	Grows generally in upland habitats; high climbing on trees			

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How can I begin using beneficial plants in my home landscape?



To begin, do not try to naturalize your landscape all at once. The replacement process can be overwhelming. Make a long-term plan to introduce beneficial species in your landscape, one section at a time, as opportunities present themselves. For example, when a plant is lost due to storm damage or disease, consider using a beneficial to replace it. BayScaping, when approached at your own pace, can be a creative and rewarding

experience.

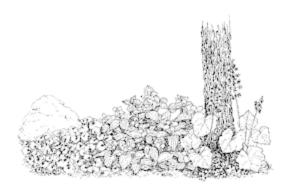
Many gardeners now choose perennial plants over annuals. While annuals offer seasonal texture and color change, they must, as their name implies, be replanted each year. Perennials provide a similar mix of color and shape variation but need only be planted once. Many perennials spread quickly to form a dense, lush bed of flowers. Once established, perennials shade out most weeds and few require additional water or maintenance. By using perennials, you will conserve water, save money and have more time to relax and enjoy your yard.

The chart below lists some traditional landscape uses and beneficial plant alternatives. (For a more complete list of beneficial plants, refer to the BayScapes Beneficial Plant List found in the BayScapes brochure.)

RECOMMENDED RENEFICIAL PLANTS					
Landscape	Plant Name	Description	Major		
Deciduous,	Sourwood, Sorrel Tree	Pyramidal; flower tassels	Tolerates urban		
Evergreen,	American Holly	Red berry; needs moist,	Wildlife value		

	Tsuga canadensis	prefers rich, moist soil	small mammals
Small	Shad Blow Tree,	Oval; light gray bark,	High value for
Deciduous, Accent Tree	or	early bloom, red fruit in summer	songbirds, small mammals
	canadensis Fringetree Chionanthus virginicus	Pyramidal; slow growing, fragrant June flower; needs deep, moist soil; tolerates light shade	Value for song-birds; shade tolerant
Evergreen, Foundation Shrub	Inkberry Ilex glabra Juniper Juniperus communis	Globular; open habit, small leafe, black berry; tolerates sandy, peaty, acid soil Oval; blueish gray; tolerates dry, poor soil	Bee nectar; high value for waterfows, songand game birds Drought tolerant; high value for songbirds
Deciduous Shrub, Hedge Plant	Red Chokeberry Aronia arbutifolia Winterberry Ilex verticillata	Flowers May-June, smooth pale leaves, red berry; tolerates wet acid or dry soil Oval; small flower May, bright red berry; tolerates any soil and some shade	Value for song- and game birds;trans-plants well Value for winter waterfowl & songbirds; tolerates wet soil
Ground Cover	Common Bearberry Arctostaphylos uva- ursi Violet Wood Sorrel Oxalis violacea	Creeping habit; needs sun; tolerates dry soil Tolerates some shade and dry soil	Drought tolerant Drought tolerant; excellent in rock garden

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What about special or poor soil conditions?

When selecting any plant, you not only need to consider blooming season, color and height, but other special habitat requirements and preferred growing conditions. Poor soils, common in urban and suburban locations, require selecting plants that tolerate such conditions for gardening success. In the Bay region, landscapers have discovered that indigenous species such as red maples and black gum grow quite well in poor or wet soil conditions. It seems logical, then, that plants growing naturally in wetlands, floodplains or nutrient-poor, sandy soil will perform well in similar conditions in a home landscape. Part of your planning process should include having soil from different locations throughout your yard tested and analyzed. By doing so, you will be armed with the information to improve it, if necessary, and to select plants that will reward your efforts with a spectacular finished look.

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How do I go about locating and purchasing beneficial plants?

Most large garden centers and nurseries offer a broad range of beneficial plants for sale. During the last few years, such companies have recognized the importance of adding natives to their stock. When you talk to your local plant dealer, explain that you want plants that provide wildlife habitat, need less fertilizers and pesticides and require less water and overall maintenance. When shopping, be prepared to discuss site information such as sun availability, soil type and your planting goals (to provide screening, bloom and color, or wildlife food, for instance).

In the Chesapeake Bay region, native plant societies can advise you on good mail order and retail sources for beneficial plants. Contact the American Horticultural Society's Gardening Information Center, 1-800-777-7931 (11 a.m. - 3 p.m. EST), or write:

- Pennsylvania Horticultural Society, 325 Walnut Street, Philadelphia, PA 19106
- The Maryland Native Plant Society, Inc., P.O. Box 4877, Silver Spring, MD 20914
- Virginia Native Plant Society, P.O. Box 844, Annandale, VA 22003

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One final note...

Use caution when selecting plants at nurseries to avoid purchasing invasive species -- be they native, naturalized, or exotic. Buy nursery-grown or nursery-propagated stock only. Some native plants and wildflowers, especially those difficult to propagate in nurseries, are actually collected from the wild. Ecologists are concerned about declining populations of these native varieties. By asking your nursery manager to explain the origins of your plant selections, you can better determine if they truly are beneficial and appropriate for your yard.

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Suggested reading list

Bir, Richard W. *Growing and Propagating Showy Native Woody Plants*. Chapel Hill: University of North Carolina Press, 1992.

Hightshoe, Gary L. *Native Trees, Shrubs, and Vines for Urban and Rural America*. New York: Van Nostrand Reinhold. 1988.

Wilson, William W.H., ed. *Landscaping with Wildflowers and Native Plants*. San Francisco: Ortho Books, 1984.

Sawyers, Claire E. and Barbara B. Pesch, eds. *Gardening with Wildflowers and Native Plants*. Handbook #119. Brooklyn: Brooklyn Botanic Garden, Inc., 1989. Bruce, Hal. *How to Grow Wildflowers and Wild Shrubs and Trees in Your*

Garden. Van Nostrand Reinhold, 1976.

Loewer, Peter and Barbara B. Pesch, eds. *Ornamental Grasses: Plants and Gardens*. Handbook #117. Brooklyn: Brooklyn Botanic Garden, Inc., 1988. White Christopher P. *Chesapeake Bay: A Field Guide*. Easton, MD: Tidewater Publishers, 1989.

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For More Information

For specific information on selecting and purchasing plants appropriate for your region, contact your local or area Cooperative Extension office. The Cooperative Extension is a service of the land-grant university systems in the District of Columbia, Maryland, Pennsylvania and Virginia.

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BayScapes is an environmental education initiative developed by the <u>Alliance for the Chesapeake Bay</u> and the <u>U.S. Fish and Wildlife Service</u>, Chesapeake Bay Field Office.

For more information on BayScapes, contact:

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