

Revision Date: **31 January 2009**Rebecca Pineo, Botanic Gardens Intern
Susan Barton, Extension Specialist
University of Delaware
Bulletin #133

Sustainable Landscapes Series

Checklist for Plant Removal Decisions

During construction or landscaping, you may need to make decisions about existing plants on your property—should they stay or should they go? Sustainable sites promote preservation of healthy, mature specimens that offer benefits such as erosion control and wildlife habitat and do not pose a threat to human safety or the natural environment.

Some factors to consider when making a decision about plant removal:

Invasiveness . Any exotic plant or aggressive native plant that is known to spread to natural areas and out-compete native vegetation should be removed from the landscape and replaced with a non-invasive. For more information, consult the publications <i>Controlling Backyard Invaders</i> and <i>Livable Plants for the Home Landscape</i> , available at http://ag.udel.edu/extension/horticulture/
Health . If a plant is in a state of decline, it should be removed. Plants do not live forever and some plants may have outlived their value in a landscape. Plants infected with a chronic disease or virus should be removed from the landscape and replaced with a resistant variety. Remove plants that are highly susceptible to insect infestation and/or are routinely infested each year. When plants are well-adapted to a site they can tolerate insect feeding at low levels without becoming unattractive.
Maintenance requirements . Plants that require intensive energy and resources to maintain may need to be replaced. For instance, consider replacing turf grass under a tree with a shade-loving, drought-tolerant groundcover. Foundation plantings that require frequent pruning to keep window views clear could be replaced with a more compact plant. Old landscapes may contain plants that have outgrown their site. Plants encroaching on walkways, plants that are out of scale with the rest of the landscape or plants that have grown together into an indistinguishable mass may be candidates for removal.
Maturity . Mature, healthy plants, especially trees, should be preserved as much as possible. Old, large shade trees sequester an enormous amount of carbon, produce copious quantities of oxygen, provide habitat for a variety of wildlife, and cool the landscape with shade and natural transpiration processes. It takes many years for new plantings to

Sustainable Landscapes – http://ag.udel.edu/extension

it may be possible to keep even dead trees that provide wildlife habitat and contribute to the natural look of the landscape.
Wildlife value . Vegetation existing on the landscape may be a source of food and shelter for a range of wildlife. A single tree, for example, can house a variety of birds, mammals, reptiles and insects that would be displaced were the specimen to be removed from the landscape. It may, however, be appropriate to exchange exotic plants for native plants to provide maximum wildlife value. (For more information about sustaining wildlife in the garden, consult the fact sheet "Supporting Biodiversity in the Garden," available at http://ag.udel.edu/udbg/sl/vegetation.html).
Relationship to adjacent vegetation. If you have vegetation marked for definite preservation, consider how removing or preserving the surrounding vegetation may affect it. Trees and taller shrubs provide sun and wind protection for smaller shrubs and herbaceous perennials. Vegetation planted under a tree's canopy should be disturbed as little as possible to avoid damage to the tree's roots, most of which exist in the top eighteen inches of the soil.
Safety risks . Vegetation that poses a safety hazard to humans or threatens damage to utilities should be managed or removed. This may include weakened trees adjacent to buildings or well-traveled areas, overgrown shrubs at the end of the driveway that block views to the street, and plants that interfere with aboveground utility lines or underground pipes. In the case of a very old or otherwise questionable tree, consult a certified arborist to evaluate its integrity and possible hazards.
Importance to erosion prevention . Plantings on slopes and along stream banks should be preserved as much as possible. Extensive roots systems hold the soil in place to help prevent erosion and bank failure. Riparian buffers (streamside vegetation) are extremely important for slowing runoff and filtering out pollutants before they reach the stream.
Proximity to impermeable areas. Plants located downhill from impermeable areas (such as asphalt or concrete) help runoff infiltrate the soil and recharge the groundwater. If you must remove vegetation from these areas, consider alternate ways to manage stormwater on-site. For ideas, consult the fact sheet "Harvesting Water," available at http://ag.udel.edu/udbg/sl/hydrology.html

replicate the environmental benefits provided by mature plantings. In a wooded landscape,

Location in critical areas. Plantings in wetlands, floodplains, biological corridors, or
designated buffer zones should not be removed unless absolutely necessary. A government
permit may be required to remove vegetation in protected areas.

Additional Resources

Landscape Rejuvenation: Remodeling the Home Landscape by Bonnie Lee Appleton (Storey Communications, 1988)

Bibliography

Appleton, Bonnie Lee. (1988). *Landscape Rejuvenation: Remodeling the Home Landscape*. Pownal, VT: Storey Communications, Inc.

Booth, Norman K. and James E. Hiss. (2008). *Residential Landscape Architecture: Design Process for the Private Residence.* 5th Edition. Pearson Prentice Hall: Upper Saddle River, NJ.

City of Glasgow, Kentucky. (2004). Activity: Preservation and Maintenance of Existing Vegetation (PMV). *Stormwater Best Management Practices (BMPs)/ Good Housekeeping Practices (GHPs)*. Retrieved November 16, 2008 from http://www.cityofglasgow.org/stormwater/GHP-18PreservationAndMaintenanceOfExistingVegetation.pdf.

Milburn, Lee-Anne. (2007). Minimizing Environmental Impact through Design: Tools and Techniques for Low Impact Development. Retrieved November 16, 2008 from

http://www.ces.ncsu.edu/depts/agecon/WECO/blackcreek/Milburn%20Min%20Enviro%20Impact%20thru%20Design.pdf.