Damage to ornamental plants by white-tailed deer (*Odocoileus virginianus*) has increased during the past decade. This increase is attributed to: 1) rising deer populations; 2) human populations shifting to rural and suburban homesites; 3) loss of deer habitat to development; and 4) landowner decisions to prevent deer hunting.

The best approach to managing deer damage is a wildlife damage management plan, which includes careful monitoring of any one of, or a combination of, the following strategies: population management, fencing, repellents/scare tactics, or vegetation management. An in-depth description of all options is found in Extension bulletin 354, “Managing Deer Damage in Maryland,” available at your local Maryland Cooperative Extension office. This fact sheet deals with aspects of vegetation management in residential applications.

In the short run, damage to ornamental plants is largely irreversible. Damage, particularly in suburban areas with good-quality deer habitat, probably will increase. However, by planting ornamentals not favored by deer, landscapers and homeowners can attempt to preserve vulnerable landscapes.

**Deer Feeding Habits**

Deer feed selectively on fertilized and unfertilized landscape plantings and managed croplands. Costly browsing damage may be reduced or eliminated by planting less-preferred species or by establishing susceptible plants only in protected areas. A few strategies to consider include planting susceptible plants close to the house or in a fenced yard, or planting preferred species inside a protective ring of less-preferred species. Under most circumstances, landscaping based on a knowledge of deer feeding preferences provides an alternative to expensive chemical repellents and unsightly physical barriers.

Whether deer will target a particular plant species or variety depends on their previous habits and nutritional needs, plant palatability, seasonal factors, weather conditions, geographic area, and availability of alternative foods. Deer are creatures of habit, and previous movement patterns or foraging experiences can determine where damage will occur. Also, one plant species may be rarely damaged in one region of the country, but highly preferred in another due to differences in deer pressure and other factors. Examples of species with noted regional differences include holly, white pine, and deciduous magnolias. Therefore, caution must be taken when using plant preference lists from areas outside your own.

In general, damage from browsing is most severe when snow cover or extreme cold has
reduced food availability. Another problem time is early spring when young succulent growth of ornamentals provides attractive browse before other spring growth is available. When food is in short supply, deer will browse even the most undesirable plants. Under such conditions, landscapers should combine other damage control measures with careful plant selection. Information on repellents, physical barriers (fencing), and deer population control are available from Maryland Cooperative Extension and the Maryland Department of Natural Resources Wildlife Division. Ultimately, reducing the deer herd size is the most effective solution.

**Plant Damage List**

The following list contains many ornamental plants adaptable to Maryland landscapes and notes their susceptibility to deer damage. This information is useful both to select plants that are unlikely to be damaged by deer and to identify those ornamentals that frequently require protection. Four categories were created: Rarely Damaged, Seldom Damaged, Occasionally Damaged, and Frequently Damaged. The placement of plants in these categories is based on the experiences of nursery operators, landscape contractors and designers, Maryland Cooperative Extension personnel, research staff, and professional horticulturists. The information derives from personal communications, published articles, and unpublished reports. Please note that deer-browsing resistance of a plant species changes according to fluctuations in deer populations, alternative food availability, and environmental factors. No plant is safe under all conditions.

This is an evolving list and any suggestion for additions and changes can be sent to the following address: Fact Sheet 655, Maryland Cooperative Extension, 18330 Keedysville Road, Keedysville, MD 21756-1104.

Plants listed in the Rarely Damaged category are eaten infrequently by deer and are the best candidates for damage-prone landscapes. Deer sometimes feed on ornamentals listed as Seldom Damaged, but the browsing is usually minor and generally does not detract from the shape or attractiveness of the plant. The category Occasionally Damaged includes plants that can be severely damaged by deer. Finally, deer prefer ornamentals in the category Frequently Damaged. These plants often require physical or chemical protection. Before planting any of the species listed, check to ensure that they suit local climatic and soil conditions.

### Rarely Damaged

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Aesculus parviflora</em></td>
<td>Bottlebrush Buckeye</td>
</tr>
<tr>
<td><em>Amelanchier arborea</em></td>
<td>Downy Serviceberry</td>
</tr>
<tr>
<td><em>Amelanchier canadensis</em></td>
<td>Shadbush</td>
</tr>
<tr>
<td><em>Amelanchier laevis</em></td>
<td>Allegheny Serviceberry</td>
</tr>
<tr>
<td><em>Betula albo-sinensis</em></td>
<td>Chinese Paper Birch</td>
</tr>
<tr>
<td><em>Betula nigra ‘Heritage’</em></td>
<td>Heritage Birch</td>
</tr>
<tr>
<td><em>Betula papyrifera</em></td>
<td>Paper Birch</td>
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<tr>
<td><em>Chamaecyparis pisifera</em></td>
<td>Japanese Falsecypress</td>
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<tr>
<td><em>Cryptomeria japonica</em></td>
<td>Japanese Cedar</td>
</tr>
<tr>
<td><em>Ilex x aquipernyi ‘Dragon Lady’</em></td>
<td>Dragon Lady Holly</td>
</tr>
<tr>
<td><em>Ilex x aquipernyi ‘San Jose’</em></td>
<td>San Jose Holly</td>
</tr>
<tr>
<td><em>Picea pungens glauca</em></td>
<td>Colorado Blue Spruce</td>
</tr>
<tr>
<td><em>Pinus sylvestris</em></td>
<td>Scotch Pine</td>
</tr>
<tr>
<td><em>Pseudotsuga menziesii</em></td>
<td>Douglas Fir</td>
</tr>
</tbody>
</table>
Shrubs and Climbers

- *Arctostaphylos uva-ursi*  
  Bearberry
- *Asimina triloba*  
  Pawpaw
- *Berberis spp.*  
  Barberry
- *Buxus spp.*  
  Boxwood
- *Caryopteris x clandonensis*  
  Caryopteris
- *Cornus sericea*  
  American Bittersweet
- *Cephalotaxus baccata var. koreana*  
  Japanese Plum-Yew
- *Elaeagnus angustifolia*  
  Russian Olive
- *Gaultheria procumbens*  
  Creeping Wintergreen
- *Gaultheria shallon*  
  Shallon
- *Hibiscus syriacus*  
  Rose of Sharon
- *Ilex x ‘John T. Morris’*  
  John T. Morris Holly
- *Ilex x ‘Lydia Morris’*  
  Lydia Morris Hollies
- *Leucothoe spp.*  
  Leucothoe
- *Ligustrum vulgare*  
  European Privet
- *Pieris japonica*  
  Japanese Andromeda
- *Rhamnus cathartica*  
  Common Buckthorn
- *Sambucus canadensis*  
  Blueberry Elder
- *Sarcococca hookeriana var. humilis*  
  Dwarf Sweet Christmas Box

Annuals, Perennials, and Bulbs

- *Achillea spp.*  
  Yarrow
- *Aconitum spp.*  
  Monkshood
- *Ageratum houstonianum*  
  Ageratum
- *Allium christophii*  
  Star of Persia
- *Allium neapolitanum*  
  Daffodil Garlic
- *Allium ostrowskianum*  
  Lily Leek
- *Anemone x hybrida*  
  Japanese Anemone
- *Anemonella thalictroides*  
  Rue Anemone
- *Anethum graveolens*  
  Common Dill
- *Aquilegia spp.*  
  Columbine
- *Aurinia saxatilis*  
  Basket-of-Gold
- *Antirrhinum majus*  
  Snapdragon
- *Arabis spp.*  
  Rock-cress
- *Arisaema triphyllum*  
  Jack-in-the-Pulpit
- *Aubrieta deltoidea*  
  Rock Cress
- *Bergenia spp.*  
  Bergenia
- *Ceratostigma plumbaginoides*  
  Plumbago
- *Cimicifuga racemosa*  
  Snakeroot
- *Colchicum autumnale*  
  Colchicum
- *Colchicum speciosum*  
  Colchicum
- *Consolida ambigua*  
  Larkspur
- *Convallaria majalis*  
  Lily-of-the-valley
- *Coreopsis verticillata ‘Moonbeam’*  
  Threadleaf Coreopsis
- *Cyclamen hederifolium*  
  Neopolitan Cyclamen
- *Dicentra spectabilis*  
  Bleeding Heart
- *Digitalis spp.*  
  Foxglove
- *Dryopteris marginalis*  
  Wood Fern
- *Echinacea purpurea*  
  Purple Coneflower
- *Epimedium spp.*  
  Barrenwort
- *Euphorbia spp.*  
  Euphorbia
- *Fritillaria spp.*  
  Fritillary
- *Gallium odoratum*  
  Sweet Woodruff
- *Gloriosa superba*  
  Glory Lily
**Hemmerocallis** ‘Stella de Oro’
**Hesperis matronalis**
**Hyacinth orientalis**
**Lamium maculatum**
**Lavandula spp.**
**Linaria vulgaris**
**Lobularia maritima**
**Lycoris cornaria**
**Matteuccia struthiopteris**
**Narcissus spp.**
**Nicotiana spp.**
**Onoclea sensibilis**
**Osmunda regalis var. spectabilis**
**Pachysandra procumbens**
**Pachysandra terminalis**
**Papaver orientale**
**Pelargonium spp.**
**Pervoskia atriplicifolia**
**Ranunculus spp.**
**Rheum rhubarbarum**
**Rudbeckia spp.**
**Salvia spp.**
**Santolina chamaecyparissus**
**Scilla spp.**
**Stachys byzantina**
**Tagetes spp.**
**Tanacetum vulgare**
**Thymus spp.**
**Tiarella cordifolia**
**Tropaeolum majus**
**Yucca spp.**

**Stella de Oro Daylily**
**Dame’s Rocket**
**Hyacinth**
**Deadnettle**
**Lavender**
**Toadflax**
**Sweet Alyssum**
**Rose Champion**
**Ostrich Fern**
**Daffodil**
**Flowering Tobacco**
**Sensitive Fern**
**Royal Fern**
**Allegheny Spurge**
**Japanese Spurge**
**Oriental Poppy**
**Scented Geranium**
**Russian Sage**
**Buttercup**
**Rhubarb**
**Coneflower**
**Sage**
**Lavender Cotton**
**Squill**
**Lamb's Ears**
**Marigold**
**Common Tansy**
**Thyme**
**Foam Flower**
**Nasturtium**
**Yucca**

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### Botanical Name

### Common Name

#### Trees

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Ammelanchier canadensis</em></td>
<td>Shadbush</td>
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<tr>
<td><em>Betula pendula</em></td>
<td>European White Birch</td>
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<tr>
<td><em>Cornus florida</em></td>
<td>Flowering Dogwood</td>
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<tr>
<td><em>Cornus kousa</em></td>
<td>Korean Dogwood</td>
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<tr>
<td><em>Crataegus laevigata</em></td>
<td>English Hawthorn</td>
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<tr>
<td><em>Fagus sylvatica</em></td>
<td>European Birch</td>
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<tr>
<td><em>Gleditsia triacantbos</em></td>
<td>Honey Locust</td>
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<tr>
<td><em>Ilex opaca</em></td>
<td>American Holly</td>
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<tr>
<td><em>Lindera benzoin</em></td>
<td>Spicebush</td>
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<tr>
<td><em>Picea abies</em></td>
<td>Norway Spruce</td>
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<tr>
<td><em>Picea glauca</em></td>
<td>White Spruce</td>
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<tr>
<td><em>Pinus nigra</em></td>
<td>Austrian Pine</td>
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<tr>
<td><em>Pinus mugo</em></td>
<td>Mugo Pine</td>
</tr>
<tr>
<td><em>Pinus resinosa</em></td>
<td>Red Pine</td>
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<tr>
<td><em>Pinus rigida</em></td>
<td>Pitch Pine</td>
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<tr>
<td><em>Prunus serrulata</em></td>
<td>Japanese Flowering Cherry</td>
</tr>
<tr>
<td><em>Salix matsudana ‘Tortuosa’</em></td>
<td>Corkscrew Willow</td>
</tr>
<tr>
<td><em>Sassafras albidum</em></td>
<td>Common Sassafras</td>
</tr>
</tbody>
</table>
Shrubs and Climbers

Buddleia spp.
Calycanthus occidentalis
Ceanothus spp.
Choisyia ternata
Cistus spp.
Cornus sanguinea
Daphne spp.
Enkianthus campanulatus
Forsythia spp.
Hipppophae rhamnoides
Ilex glabra
Jasminum nudiflorum
Juniperus chinensis
Kerria japonica
Kolwitzia amabilis
Laurus nobilis
Lonicera spp.
Mahonia spp.
Myrica pensylvanica
Nandina spp.
Osmanthus heterophyllus
Philadelphus spp.
Prunus laurocerasus
Ribes spp.
Spirea spp.
Syringa vulgaris
Syringa villosa
Viburnum juddii
Viburnum rhytidophyllum
Viburnum carlesii
Viburnum plicatum
Weigela florida

Butterfly Bush
California Sweetshrub
Cheonothus
Mexican Orange
Rock Rose
Bloodtwig Dogwood
Daphne
Redvein Enkianthus
Forsythia
Sea Buckthorn
Inkberry
Winter Jasmine
Chinese Juniper
Japanese Kerria
Beauty Bush
Laurel
Honeysuckle
Grape Holly
Bayberry
Heavenly bamboo
Holly Osmanthus
Mock Orange
Cherry Laurel
Currant
Spirea
Late Lilac
Common Lilac
Judd Viburnum
Leatherleaf Viburnum
Koreanspice Viburnum
Doublefile Viburnum
Old Fashion Weigela

Annuals, Perennials, and Bulbs

Agapanthus spp.
Alcea spp.
Artemisia spp.
Aruncus dioicus
Asarum spp.
Aster spp.
Astilbe spp.
Begonia spp.
Chrysanthemum spp.
Coreopsis spp.
Crocosmia hybrids
Delphinium spp.
Helleborus niger
Helleborus orientalis
Hypericum spp.
Iris spp.
Kniphofia spp.
Lantana spp.
Lilium tigrinum
Lobelia spp.
Lupinus spp.

Lily-of-the-Nile
Hollyhock
Wormwood
Goat’s Beard
Ginger
Aster
Astilbe
Begonia
Chrysanthemum
Tickweed
Montbretia
Delphinium
Christmas Rose
Lenten Rose
St. John’s-wort
Iris
Red Hot Poker
Lantana
Tiger Lily
Lobelia
Lupine
Mentha spp.  
Nepeta spp.  
Ophiopogon japonicus  
Oxalis spp.  
Potentilla spp.  
Romneya coulteri  
Tiarella spp.  
Umbellularia californica  
Veronica spp.  
Zinnia spp.

Occasionally Damaged

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Common Name</th>
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<tbody>
<tr>
<td><strong>Trees</strong></td>
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</tr>
<tr>
<td>Abies concolor</td>
<td>White Fir</td>
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<tr>
<td>Abies fraseri</td>
<td>Fraser Fir</td>
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<tr>
<td>Acer griseum</td>
<td>Paperbark Maple</td>
</tr>
<tr>
<td>Acer <em>palatum</em> /green-leaved only</td>
<td>Japanese Maple</td>
</tr>
<tr>
<td>Acer rubrum</td>
<td>Red Maple</td>
</tr>
<tr>
<td>Acer saccharinum</td>
<td>Silver Maple</td>
</tr>
<tr>
<td>Acer saccharum</td>
<td>Sugar Maple</td>
</tr>
<tr>
<td>Aesculus hippocastanum</td>
<td>Horse Chestnut</td>
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<tr>
<td>Chamaecyparis thyoides</td>
<td>Atlantic White Cedar</td>
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<tr>
<td>Juniperus virginiana</td>
<td>Eastern Red Cedar</td>
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<tr>
<td>Larix decidua</td>
<td>Larch</td>
</tr>
<tr>
<td>Liquidambar styraciflua</td>
<td>Sweet Gum</td>
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<tr>
<td>Michelia figo</td>
<td>Banana Shrub</td>
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<tr>
<td>Metasequoia glyptostroboides</td>
<td>Dawn Redwood</td>
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<tr>
<td><em>Pseudolarix kaempferi</em></td>
<td>Golden Larch</td>
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<tr>
<td>Pyrus calleryana</td>
<td>Callery Pear</td>
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<tr>
<td>Quercus alba</td>
<td>White Oak</td>
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<tr>
<td>Quercus prinus</td>
<td>Chestnut Oak</td>
</tr>
<tr>
<td>Quercus rubra</td>
<td>Red Oak</td>
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<tr>
<td>Rhus typhina</td>
<td>Staghorn sumac</td>
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<tr>
<td>Robinia spp.</td>
<td>Locust</td>
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<tr>
<td>Salix spp.</td>
<td>Willow</td>
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<tr>
<td>Syringa reticulata</td>
<td>Japanese Tree Lilac</td>
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<tr>
<td>Tilia americana</td>
<td>American Linden</td>
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<tr>
<td>Tilia cordata</td>
<td>Littleleaf Linden</td>
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<table>
<thead>
<tr>
<th><strong>Shrubs and Climbers</strong></th>
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<tbody>
<tr>
<td>Bambusa spp.</td>
<td>Bamboo</td>
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<tr>
<td>Campsis radicans</td>
<td>Trumpet Vine</td>
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<tr>
<td>Chaenomeles speciosa</td>
<td>Japanese Flowering Quince</td>
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<tr>
<td>Comus racemosus</td>
<td>Panicled Dogwood</td>
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<tr>
<td>Cotinus coggyria/not purple-leaved</td>
<td>Smoke Bush</td>
</tr>
<tr>
<td>Cottoneaster spp.</td>
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<tr>
<td>Hamamelis spp.</td>
<td>Witch Hazel</td>
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<tr>
<td>Hydrangea arborescens</td>
<td>Smooth Hydrangea</td>
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<tr>
<td>Hydrangea anomala petiolaris</td>
<td>Climbing Hydrangea</td>
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<tr>
<td>Hydrangea paniculata</td>
<td>Panicle Hydrangea</td>
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<tr>
<td>Ilex crenata</td>
<td>Japanese Holly</td>
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<tr>
<td>Lonicera x beckwithii</td>
<td>Goldflame Honeysuckle</td>
</tr>
<tr>
<td>Parthenocissus quinquefolia</td>
<td>Virginia Creeper</td>
</tr>
</tbody>
</table>
Pyracantha coccinea
Rhododendron spp./deciduous tree forms
Rosa multiflora
Rosa rugosa
Spirea × bumalda ‘Anthony Waterer’
Spirea prunifolia
Syringa × persica
Wisteria floribunda
Viburnum opulus

Frequently Damaged

<table>
<thead>
<tr>
<th>Botanical Name</th>
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</tr>
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<tbody>
<tr>
<td>Abies balsamea</td>
<td>Balsam Fir</td>
</tr>
<tr>
<td>Acer palmatum/red-leaved varieties</td>
<td>Japanese Maple</td>
</tr>
<tr>
<td>Acer platanoides</td>
<td>Norway Maple</td>
</tr>
<tr>
<td>Cederus atlantica</td>
<td>Atlas Cedar</td>
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<tr>
<td>Cercis canadensis</td>
<td>Redbud</td>
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<tr>
<td>Chionanthus virginicus</td>
<td>Fringe Tree</td>
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<tr>
<td>× Cupressocyparis leylandii</td>
<td>Leyland Cypress</td>
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<tr>
<td>Fraxinus excelsior</td>
<td>European Ash</td>
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<tr>
<td>Ilex ‘Nellie Stevens’</td>
<td>Nellie Stevens Holly</td>
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<tr>
<td>Kuelreutaria paniculata</td>
<td>Goldenrain Tree</td>
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<tr>
<td>Magnolia soulangiana</td>
<td>Saucer Magnolia</td>
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<tr>
<td>Malus spp.</td>
<td>Apple and Crabapple</td>
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<tr>
<td>Prunus spp.</td>
<td>Cherry and Plum</td>
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<tr>
<td>Pinus strobus</td>
<td>White Pine</td>
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<tr>
<td>Pyrus spp.</td>
<td>Pear</td>
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<td>Thuja occidentalis</td>
<td>Arborvitae</td>
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<tr>
<td>Tsuga spp.</td>
<td>Hemlock</td>
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Shrubs and Climbers

<table>
<thead>
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<tr>
<td>Chaenomeles japonica</td>
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<td>Cornus mas</td>
<td>Cornelian Cherry Dogwood</td>
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<tr>
<td>Euonymus alatus</td>
<td>Winged Euonymus</td>
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<tr>
<td>Euonymus fortunei</td>
<td>Winter creeper</td>
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<tr>
<td>Hydrangea macrophylla</td>
<td>Bigleaf Hydrangea</td>
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<tr>
<td>Hydrangea quercifolia</td>
<td>Oakleaf Hydrangea</td>
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<tr>
<td>Ilex cornuta</td>
<td>Chinese Holly</td>
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<tr>
<td>Ilex × merserveae</td>
<td>Merveerve Holly</td>
</tr>
<tr>
<td>Ilex verticillata</td>
<td>Common Winterberry</td>
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<tr>
<td>Kalmia latifolia</td>
<td>Mountain Laurel</td>
</tr>
<tr>
<td>Rhododendron austrinum</td>
<td>Florida Azalea</td>
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<tr>
<td>Rhododendron nudiflorum (periclymenoides)</td>
<td>Pinksterbloom Azalea</td>
</tr>
<tr>
<td>Rhododendron × yaseyl</td>
<td>Pink Shell Azalea</td>
</tr>
<tr>
<td>Rhododendron hybrids</td>
<td>Evergreen Azaleas &amp; Rhododendron</td>
</tr>
<tr>
<td>Rosa hybrids</td>
<td>Hybrid Roses</td>
</tr>
<tr>
<td>Rubus spp.</td>
<td>Blackberry &amp; Raspberry</td>
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<tr>
<td>Sorbus aucuparia</td>
<td>European Mountain Ash</td>
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<tr>
<td>Syringa patula</td>
<td>Manchurian Lilac</td>
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<tr>
<td>Taxus spp.</td>
<td>Yew</td>
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<tr>
<td>Vaccinium corymbosum</td>
<td>Highbush Blueberry</td>
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</tbody>
</table>
Annuals, Perennials, and Bulbs

Aegopodium podagaria
Athyrium niponicum var. pictum
Cherianthus spp.
Hedera helix
Helianthus spp.
Hosta spp.
Hemerocallis spp. & hybrids
Iberis sempervirens
Lilium spp.
Matthiola incana
Pelargonium spp.
Polygonatum biflorum
Ranunculus asiaticus
Trillium spp.
Vinca minor
Viola spp.
Bishop’s Weed
Japanese Painted Fern
Wallflower
English Ivy
Sunflower
Hosta
Daylily
Candytuft
Lily
Stock
Geranium
Solomon’s Seal
Buttercup
Trillium
Periwinkle
Pansies & Violas

References

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