Ornamental and Garden Plants: Controlling Deer Damage

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Oklahoma's white-tailed deer (*Odocoileus virginianus*) (Figure 1) population has increased from 40,000 to around 500,000 since the 1960s. At the same time, urban development continues to move into deer habitat. Increasingly, homeowners at the rural/urban interface must deal with deer damage to ornamental and garden plants. As deer begin moving into an area, homeowners initially enjoy seeing deer and may actually encourage them to come into their yard by feeding them. Homeowner attitudes often begin to change after deer numbers increase to the extent that landscape plants show heavy browsing and gardens become difficult to grow because of continued depredation.

Deer have a varied diet that includes many broadleaf herbaceous and woody plants. Deer are not considered grazers (i.e. as are cattle) but rather are considered browsing animals. They prefer to consume forbs (broadleaf herbaceous plants), shrubs, young trees, and vines. Deer will consume some species of grass, although damage is usually minimal. While deer normally feed at night, as they become habituated to people, they frequently are active during the daylight hours. Deer have no upper incisors; they feed by tearing vegetation with their lower incisors and upper palate. Thus, deer damage is easily identified by the jagged remains of browsed plant material. Annuals are often pulled out of the ground completely. Woody plants are repeatedly browsed and often exhibit a hedged appearance (Figures 2 and 3). In addition to browsing, damage may occur in the fall when bucks begin rubbing antlers on small trees (Figure 4) or other young landscape plants.

Commonly Used Control Methods

The problem of damage control is not an easy one to solve. Rural subdivisions normally ban hunting or place restrictions on firearm use to protect deer or for safety reasons. Trapping and moving excess deer is often suggested by homeowners as a humane alternative to hunting. However, the cost to move enough deer to lower damage to tolerable levels is prohibitive. Also, most areas of Oklahoma are well populated with deer and any deer moved to another area will only shorten food supplies for both resident and transplanted animals. The excess animals will then face starvation or decreased reproductive success because of chronic malnutrition. Thus, trapping and relocating problem deer is a poor solution.

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The first step in managing deer damage in the landscape is to make the landscape less attractive to deer. This is accomplished by limiting the amount of excess food in the landscape through removing all unharvested fruits and vegetables. Do not provide winter feed or salt for deer as an alternative to your landscape plants; the deer will feed on both the deer feed and your plants. When deer damage becomes a problem in the landscape, control methods include:

1) exclusion—by electric fence or eight-foot high, deer-proof fence,
2) scare or frightening tactics—with dogs, gas exploders, fireworks or motion-activated sprinklers,
3) population reduction through hunting,
4) repellents—area repellents repel by smell and contact repellents repel by taste, and
5) alternative plantings/ habitat modification.

Physical Exclusion

The most effective deer damage control method is the use of exclusion fences. Deer can easily jump over many decorative fences. To keep deer out of a landscape or garden, either an electric fence or eight-foot deer fence (Figure 5) is necessary. A deer-proof fence does not fit well with most landscaping plans and can be expensive if large areas are to be protected. One way to make fences less noticeable is to place them at the forest edge where they blend in with the surrounding shrubs and brush. Many deer fences are constructed in such a way as to become nearly invisible from a distance and new fencing materials are even less obtrusive. For small gardens, a deer-proof fence can be cost effective. Many commercial deer fencing materials are available. These are made of durable light weight polyethylene resistant to UV degradation. Deer fences can also be easily constructed using standard hog wire fence and 12-foot posts.

Electric fences (Figures 6a and 6b) are less expensive and can be just as effective; however, they do require greater maintenance. For best results, electrify the fence immediately after installation and keep electrified at all times. If an electric fence is not electrified for several days, deer may learn to go through it. Researchers have had some success with a three-wire electric fence ("New Hampshire" spacing) when baited aluminum foil strips are attached at 5-foot to 10-foot intervals. The ends of the strips are smeared with peanut butter for "bait." Deer may learn to jump electric fences if incorrectly installed

Figure 1. White-tailed deer have become so abundant across Oklahoma that they are causing damage to property.

Figure 2.This elm shows classic browsing damage caused by white-tailed deer. Notice the hedged shape from years of browsing. Although this tree species readily resprouts each year following browse damage, deer are keeping the tree from reaching a tall stature.

Figure 3. An example of a browse line caused by deer. Woody plant species vary in how resilient they are to this heavy browsing. But regardless of potential plant mortality, browse damage can be aesthetically displeasing to homeowners.

Figure 4. Male white-tailed deer frequently rub trees both before and during the rutting period. They normally choose small saplings that have a thin bark layer. This is problematic for ornamentals in lawns and also for Christmas tree production.

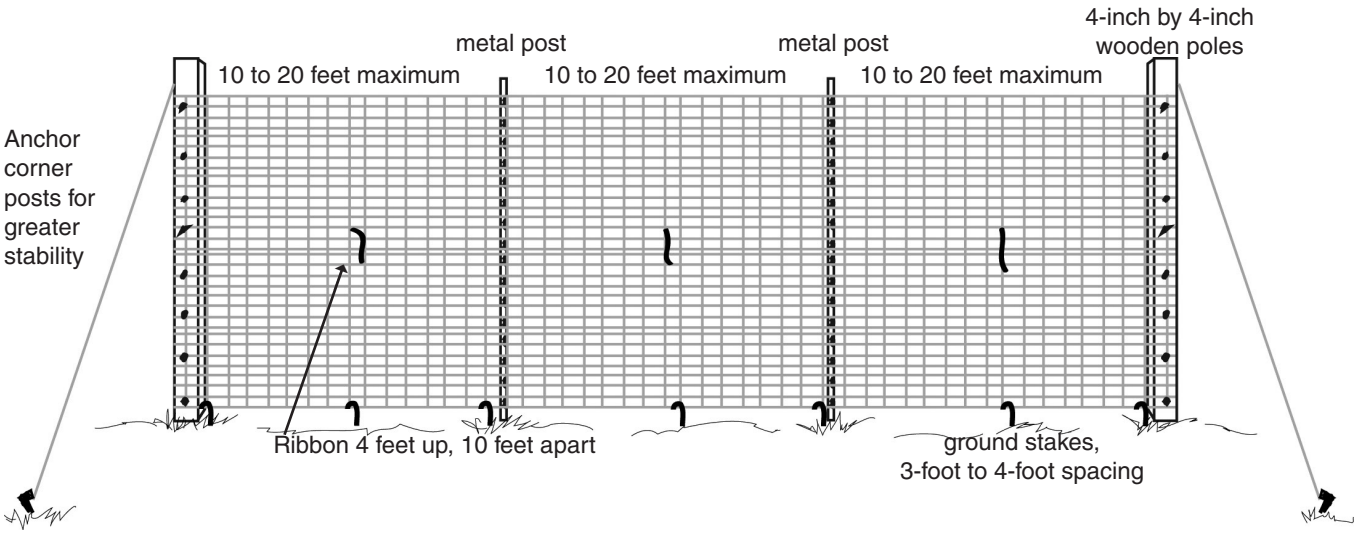

Figure 5. Proper installation of a lightweight mesh deer fence using metal or wooden (4-inch by 4-inch) posts. Attach strips of brightly colored ribbon to the fence at 10-foot intervals, four feet from the ground to make the fence more visible to deer.

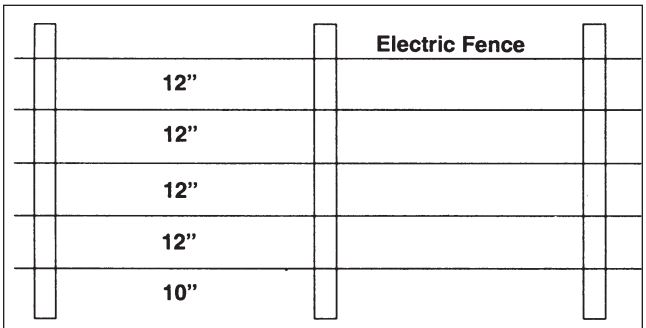

Figure 6a. The “Penn State” five-wire electric deer fence.

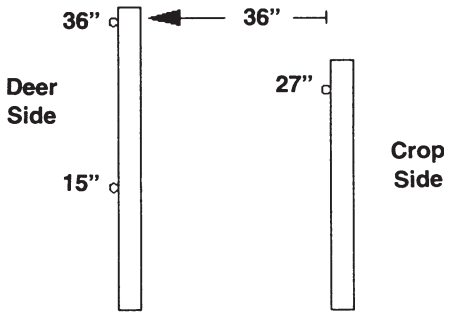

Figure 6b. A “New Hampshire” three-wire electric deer fence.

Figure 7. Wire cages can be used to protect individual trees from deer damage. Support cages securely using metal posts.

or maintenance is lacking. For very small areas (e.g. 8-foot x 8-foot) shorter fences of around 4 feet may be sufficient to protect garden plots. Deer can easily jump such short barriers, however they are normally hesitant to jump into small plots as it is more difficult to get out due to limited space within the plot. However, for most gardens this will not be a viable option.

Young trees are particularly sensitive to deer damage and are often killed through browsing. Individual trees can be easily protected from browsing damage using strong 8-foot tall wire cylinders (Figure 7). Hog wire fencing is recommended as chicken wire is not strong enough for deer protection. Stabilize the wire cylinder using t-posts and remove the fencing once trees have branched out of reach of deer. This can also be used to protect trees from deer rubbing their antlers.

Scare Tactics

A number of scare tactics are used to frighten deer away from the landscape. Dogs are very effective at repelling deer. Products such as invisible fences allow the dog to patrol an area and see and harass deer that might be moving through. These devices in combination with dogs can greatly reduce deer damage assuming the dog spends most time outdoors and will actually harass the deer. Likewise, devices that produce loud noises or even flashing lights are often used to scare deer. Propane gas exploders, strobe lights, and even radios can be effective when deer populations are low. Another device is a motion activated sprinkler that is triggered when deer enter the garden. When activated, the sudden noise, motion, and short burst of water emitted from the sprinkler frighten animals away. Scare tactics work for only short periods of time, but may be useful by providing enough protection to allow the crop to be harvested.

Population Reduction

Population reduction by sport hunting is a cost effective, long-term solution to managing deer; however it is not often a realistic option as city ordinances prohibit hunting. Where hunting is permitted, harvest with archery equipment is a safe option and deer meat can be supplied to various charitable organizations that provide food to the disadvantaged. A number of meat processing companies provide the processing and packaging for free.

Repellents

Repellents typically reduce damage by 50 percent to 75 percent at best, and often much less. If fences are not an option, repellents that have an unpleasant taste or odor may be a suitable alternative. Area repellents utilize odors and are generally less effective than contact repellents that deter feeding through bad-tasting substances. Table 1 summarizes research results on the relative effectiveness of area and contact repellents from several sources. Many of these products are costly, and a cost-benefit analysis should be considered before application.

A number of household items are commonly used as area repellents including human hair, bar soap, cat or dog feces, and moth balls. Most of these have shown little impact on deer browsing in scientific research; however, human hair and bar soap can reduce browsing up to 35 percent. The repellents that have demonstrated the best efficacy are thiram-based contact repellents such as Chaperone and Spotrete-F and those made with putrescent egg solids.

Table 1. Comparison of damage reduction with commonly used area or contact repellents.[a]

Class of Repellents	*Percent Reduction of Damage*
Area	
Magic Circle (bone tar oil)	15-34
Hinder (ammonia soaps of higher fatty acids)	43
human hair	15-34
bar soap	38
blood meal	NE[b]
cat/dog feces	NE[b]
moth balls	NE[b]
human sweat	NE[b]
putrefied meat scraps	NE[b]
Contact	
Big Game Repellent (BGR) (putrescent egg solids)	70-99[c]
Ro-pel (Benzyldiethyl ammonium saccharide)	<15
Hot Sauce (Capsaicin)	15-34
Thiram based (e.g., Chaperone, Spotrete-F)	43-78

[a] Use of a trade name does not imply an endorsement, other products with the same active ingredients will generally have similar results.
[b] NE—generally considered not effective.
[c] Must be reapplied one to two times per month for good efficacy.

Repellents can reduce damage, but will not entirely eliminate damage. A deer will eat just about anything if food resources are limited. Effectiveness will vary with deer density, season, palatability (or attractiveness) of the target plant, and availability of alternate foods. To be effective, repellents must be applied before deer begin actively browsing in the affected area. Keep in mind repellents will not completely eliminate damage and that a given method's effectiveness will change seasonally, based on what natural foods are available to deer. Many repellents do not weather well and will need to be reapplied after a rain.

Using Deer Feeding Behavior

Deer forage or feed selectively on different plants or plant parts. Feeding habits change with the seasonal availability of plants. Deer choose different plants and plant parts based on nutritional needs, palatability, and past experience. Deer demonstrate preference for new plantings and fertilized and cultivated domestic varieties. In Oklahoma, damage to ornamentals may occur at any time of the year. However, most complaints occur in spring, in August during dry years, and after the first cold spell in fall. Under circumstances of high population density or low food availability, deer may damage plants that they otherwise would not typically feed upon. Deer also may exhibit some regionalized taste preferences.

Like humans, deer consume a wide variety of plants to meet their nutritional requirements. Dietary and browse research in Oklahoma have documented more than 100 different species of plants comprising a deer's diet in a given locale. However, deer do tend to avoid certain plants and this knowledge can be used to determine which plants to use for landscaping and gardening. The following list details many plants used in landscaping and in gardening by relative deer use. From this list, you should be able to choose plants that will lower chances of damage occurring, or at least identify plants that may require some type of protection if they are to be grown successfully.

Judicious selection of plants in combination with various control methods should provide the rural or suburban homeowner with some realistic means of damage reduction. Remember to begin control measures before significant damage occurs. Garden plants that suffer rare or occasional damage when mature may suffer frequent damage at transplanting time (e.g., peppers, corn, okra, squash). The same may be true with garden plants that are planted early in season and again in fall. Thus, deer damage control strategies are more effective when implemented before the growing season.

In areas with severe problems, select only ornamental plants that are less frequently browsed by deer. Even if a combination of plants prone to browsing and those less prone to browsing are used, damage may still occur because deer are selective feeders. Realize that new plantings of less preferred plants may sustain damage in an area where extensive damage has previously occurred, and that younger plants frequently sustain damage because they are more palatable.

Finally, incorporating several tactics, such as planting resistant species, fencing vegetable gardens, and protecting already established, browsing-prone plants with a repellent will increase protection against deer damage. Experiment with different tactics until you find what works best in your landscape. For additional information on any of the above control measures contact your local county office of the Cooperative Extension Service.

Garden Plants—Severely Damaged

Common name	*Botanical name*
Beans	*Phaseolus* spp.
Broccoli	*Brassica oleracea italica*
Cabbage	*Brassica oleracea capitata*
Carrot	*Daucus carota sativa*
Cauliflower	*Brassica oleracea botrytis*
Kohlrabi	*Brassica oleracea*
Lettuce	*Lactuca sativa*
Peas	*Pisum sativum*
Spinach	*Spinacia oleracea*
Turnip	*Brassica rapa*

Garden Plants—Frequently Damaged

Common name	*Botanical name*
Beets	*Beta vulgaris*
Corn, sweet	*Zea mays*
Potatoes, sweet	*Ipomoea batatas*
Strawberries	*Fragaria* spp.

Garden Plants—Occasionally Damaged

Common name	*Botanical name*
Asparagus	*Asparagus officinalis*
Okra	*Abelmoschus esculentus*
Potatoes, Irish	*Solanum tuberosum*
Radish	*Raphanus sativus*
Squash	*Cucurbita pepo*

Garden Plants—Rarely Damaged

Common name	*Botanical name*
Canteloupe	*Cucumis melo cantalupensis*
Cucumber	*Cucumis sativus*
Eggplant	*Solanum melongena*
Hot peppers	*Capsicum annuum*
Onion	*Allium* spp.
Sweet peppers	*Capsicum frutescens*
Tomato	*Lycopersicon esculentum*
Watermelon	*Citrulus lanatus*

Herbaceous Plants—Annual Flowers Frequently Damaged

Common name	*Botanical name*
Aster	*Aster* spp.
Impatiens	*Imaptiens walleriana*
Morning glory	*Ipomea* spp.
Ornamental sweet potato	*Ipomea batatus*
Pansy	*Viola* spp.

Herbaceous Plants—Annual Flowers Rarely Damaged

Common name	*Botanical name*
Ageratum	*Ageratum houstonianum*
Amaranth	*Amaranthus tricolor*
Angel's trumpet	*Brugmansia* spp. (*Datura*)
Blanket flower	*Gaillardia* spp.
Castor bean	*Ricinus communis*
Cosmos	*Cosmos bipinnatus*
Chinese forget-me-not	*Cynoglossum amabile*
Cuplower	*Nierembergia hippomanica*
Dusty Miller	*Senecio cineraria*
Flowering tobacco	*Nicotiana* spp.
French marigold	*Tagetes patula*
Globe amaranth	*Gomphrena globosa*
Heliotrope	*Heliotropium arborescens*
Lantana	*Lantana* spp.
Ornamental pepper	*Capsicum annuum*
Periwinkle	*Catharanthus roseus*
Polygonum	*Polygonum capitatum*
Poppy	*Papaver* spp.
Pot marigold	*Calendula* spp.
Salvia	*Salvia viridis*
Sanvitalia	*Sanvitalia procumbens*

Signet marigold	*Tagetes tenuifolia*
Snapdragon	*Antirrhinum majus*
Snow-on-the-mountain	*Euphorbia marginata*
Spider flower	*Cleome hasslerana*
Stock	*Matthiola incana*
Strawflower	*Helichrysum bracteatum*
Sweet alyssum	*Lobularia maritima*
Wax begonia	*Begonia semperflorens*
Zinnia	*Zinnia angustifolia*
Zinnia	*Zinnia elegans*

Herbaceous Plants—Perennial Flowers Frequently Damaged

Common name	*Botanical name*
Aster	*Aster* spp.
Day lily	*Hemerocallis* spp.
English Ivy	*Hedera helix*
Hosta	*Hosta* spp.
Sunflower	*Helianthus* spp.
Tulip	*Tulipa* spp.

Herbaceous Plants—Perennial Flowers Rarely Damaged

Common name	*Botanical name*
Allium	*Allium* spp.
Amsonia	*Amsonia* spp.
Anise hyssop	*Agastache* spp.
Baby's-breath	*Gypsophila paniculata*
Barrenwort	*Epimedium* spp.
Basket of gold	*Aurinia saxatilis*
Bear's breeches	*Acanthus mollis*
Bee balm	*Monarda* spp.
Bergenia	*Bergenia* spp.
Blanket flower	*Gaillardia* spp.
Bleeding-heart	*Dicentra eximia*
Bleeding-heart	*Dicentra spectabilis*
Bugleweed	*Ajuga reptans*
Butterfly weed	*Asclepias tuberosa*
Cactus	many genera and species
Candytuft	*Iberis sempervirens*
Catmint	*Nepeta* spp.
Chrysanthemum	*Dendranthema* spp.
Columbine	*Aquilegia* spp.
Coneflower	*Echinacea* spp.
Coralbells	*Heuchera sanguinea*
Coreopsis	*Coreopsis lanceolata*
Coreopsis	*Coreopsis verticilla*
Corydalis	*Corydalis* spp.
Crocosmia	*Crocosmia* spp.
False indigo	*Baptisia* spp.
Flax	*Linum perenne*
Foxglove	*Digitalis grandiflora*
Foxglove	*Digitalis purpurea*
Gas Plant	*Dictamnus albus*
Gay-feather	*Liatris spicata*
Globe thistle	*Echinops exaltatus*
Golden marguerite	*Anthemis tinctoria*
Goldenrod	*Solidago* spp.
Grasses	many genera and species
Iris	*Iris* spp.
Italian Arum	*Arum italicum* 'Pictum'
Japanese anemone	*Anemone* x *hybrida*
Japanese painted fern	*Athyrium niponicum* var. *pictum*
Joe pye weed	*Eupatorium purpureum*
Lamb's ears	*Stachys byzantia*
Lavender	*Lavandula angustifolia*
Lavender cotton	*Santolina chamaecyparissus*
Lenten rose	*Helleborus* spp.
Lily-of-the-valley	*Convallaria majalis*
Lungwort	*Pulmonaria* spp.
Lupine	*Lupinus polyphyllus*
Meadow rue	*Thalictrum* spp.
Monkshood	*Aconitum* spp.
Narcissus	*Narcissus* spp.
Oriental poppy	*Papaver orientale*
Penstemon	*Penstemon* spp.
Plumbago	*Ceratostigma plumbaginoides*
Primrose	*Oenothera* spp.
Purple Coneflower	*Echinacea purpurea*
Ragwort	*Ligularia* spp.
Red-hot poker	*Kniphofia* spp.
Rose campion	*Lychnis coronaria*
Rosemary	*Rosmarinus officinalis*
Rue	*Ruta* spp.
Russian sage	*Perovskia atriplicifolia*
Sage	*Salvia* spp.
Sea holly	*Eryngium* spp.
Shasta daisy	*Leucanthemum* x *superbum*
Speedwell	*Veronica* spp.
Spurge	*Euphorbia* spp.
Sweet woodruff	*Galium odoratum*
Thyme	*Thymus* spp.
Toad lily	*Tricyrtis hirta*
Turtlehead	*Chelone* spp.
Virginia bluebells	*Mertensia pulmonarioides*
Wormwood	*Artemisia* species
Yarrow	*Achillea* spp.

Woody Plants—Frequently Damaged

Common name	*Botanical name*
Apples	*Malus* spp.
American Arborvitae	*Thuja occidentalis*
Cherries	*Prunus* spp.
Clematis	*Clematis* spp.
Cornelian Dogwood	*Cornus mas*
Eastern Redbud	*Cercis canadensis*
English Ivy	*Hedera helix*
Hybrid Tea Rose	*Rosa x hybrida*
Norway Maple	*Acer platanoides*
Peaches	*Prunus persica*
Plums	*Prunus* spp.

Rhododendrons	*Rhododendron* spp.
Catawba Rhododendron	*Rhododendron catawbiense*
Evergreen Azaleas	*Rhododendron* spp.
Winged Euonymus	*Euonymus alatus*
Wintercreeper	*Euonymus fortunei*
Yews	*Taxus* spp.
English Yew	*Taxus baccata*
Western Yew	*Taxus brevifolia*
Japanese Yew	*Taxus cuspidata*
English/Japanese Hybrid Yew	*Taxus* x *media*

Woody Plants—Occasionally Damaged

Common name	*Botanical name*
Basswood	
American Basswood	*Tilia americana*
Greenspire Linden	*Tilia cordata* 'Greenspire'
Beautyberry	*Callicarpa* spp.
Border Forsythia	*Forsythis* x *intermedia*
Common Witchhazel	*Hamamelis virginiana*
Cotoneaster	*Cotoneaster* spp.
Cranberry Cotoneaster	*Cotoneaster apiculatus*
Rockspray Cotoneaster	*Cotoneaster horizontalis*
Dawn Redwood	*Metasequoia glyptostroboides*
Eastern White Pine	*Pinus strobus*
Falsecypress	*Chamaecyparis* spp.
Firethorn	*Pyracantha coccinea*
Goldflame Honeysuckle	*Lonicera* x *heckrottii*
Hollies	
Japanese Holly	*Ilex crenata*
China Boy Holly	*Ilex* x *meserveae* 'China Boy'
China Girl Holly	*Ilex* x *meserveae* 'China Girl'
Hydrangeas	
Smooth Hydrangea	*Hydrangea aborescens*
Climbing Hydrangea	*Hydrangea anomala petiolaris*
Paniculated Hydrangea	*Hydrangea paniculata*
Japanese Cedar	*Cryptomeria japonica*
Japanese Flowering Quince	*Chaenomeles japonica*
Lilacs	
Japanese Tree Lilac	*Syringa* x *reticulata*
Late Lilac	*Syringa villosa*
Persian Lilac	*Syringa* x *persica*
Maples	
Paperbark Maple	*Acer griseum*
Red Maple	*Acer rubrum*
Silver Maple	*Acer saccharinum*
Sugar Maple	*Acer saccharum*
Panicled Dogwood	*Cornus racemosa*
Pears	*Pyrus* spp.
Bradford Pear	*Pyrus calleryana* 'Bradford'
Common Pear	*Pyrus communis*
Privet	*Ligustrum* spp.
Rhododendrons	
Deciduous Azaleas	*Rhododendron* spp.
Carolina Rhododendron	*Rhododendron carolinianum*
Rosebay Rhododendron	*Rhododendron maximum*
Rose of Sharon	*Hibiscus syriacus*
Roses	*Rosa* spp.
Multiflora Rose	*Rosa multiflora*
Rugosa Rose	*Rosa rugosa*
Saucer Magnolia	*Magnolia* x *soulangiana*
Serviceberries	
Downy Serviceberry	*Amelanchier arborea*
Allegheny Serviceberry	*Amelanchier laevis*
Smokebush	*Cotinus coggygria*
Oaks	*Quercus* spp.
Northern Red Oak	*Quercus rubra*
White Oak	*Quercus alba*
Spirea	
Anthony Waterer Spirea	*Spiraea* x *bumalda* 'Anthony Waterer'
Bridalwreath Spirea	*Spiraea prunifolia*
Staghorn Sumac	*Rhus typhina*
Sweet Cherry	*Prunus avium*
Sweet Mock Orange	*Philadelphus coronarius*
Trumpet Creeper	*Campsis radicans*
Viburnums	
Judd Viburnum	*Viburnum* x *juddi*
Leather leaf Vibrunum	*Viburnum rhytidophyllum*
Doublefile Viburnum	*Viburnum plicatum tomentosum*
Koreanspice Viburnum	*Viburnum carlesii*
Virginia Creeper	*Parthencocissus quinquifolia*
Weigela	*Weigela florida*
White Fir	*Abies concolor*
Willows	*Salix* spp.

Woody Plants—Seldom Damaged

Common name	*Botanical name*
American Bittersweet	*Celastrus scandens*
Beautybush	*Kolkwitzia amabilis*
Buckthorn	*Rhamnus* spp,
Chinese Junipers (green)	*Juniperus chinensis* 'Pfitzerana'
Chinese Junipers (blue)	*Juniperus chinensis* 'Hetzi'
Common Sassafras	*Sassafras albidum*
Common Lilac	*Syringa vulgaris*
Coralberry	*Symphoricarpos* spp.
Corkscrew Willow	*Salix matsudana* 'Tortuosa'
Deutzia	*Deutzia* spp.
Dogwoods	
Red Osier Dogwood	*Cornus sericea*
Flowering Dogwood	*Cornus florida*
Chinese Kousa Dogwood	*Cornus kousa*
Eastern Red Cedar	*Juniperus virginiana* 'Canaertii'
Elderberry	*Sambucus* spp.
English Hawthorn	*Crataegus laevigata*
European White Birch	*Betula pendula*
Forsythia	*Forsythia* spp.
Glossy Abelia	*Abelia* spp.
Hollies	
Chinese Holly	*Ilex cornuta*
Inkberry	*Ilex galbra*
Honey Locust	*Gleditsia triacanthos*

Japanese Flowering Cherry	*Prunus serrulata*
Japanese Wisteria	*Wisteria floribunda*
Kentucky Coffeetree	*Gymnocladus dioicus*
Norway Spruce	*Picea abies*
Pines	
Austrian Pine	*Pinus nigra*
Mugo Pine	*Pinus mugo*
Red Pine	*Pinus resinosa*
Scots Pine	*Pinus sylvestris*
Virginia sweetspire	*Itea virginica*

Woody Plants—Rarely Damaged

Common name	*Botanical name*
American Holly	*Ilex opaca*
Barberry	*Berberis* spp.
Common Barberry	*Berberis vulgaris*
Blue-mist Shrub	*Caryopteris* x *clandonensis*
Boxelder	*Acer negundo*
Butterfly bush	*Buddleia* spp.
Buttonbush	*Cephalanthus occidentalis*
Catalpa	*Catalpa* spp.
Colorado Blue Spruce	*Picea pungens glauca*
Common Boxwood	*Buxus sempervirens*
Creeping Mahonia	*Mahonia repens*
Drooping leucothoe	*Leucothoe fontanesiana*
Dwarf Alberta spruce	*Picea glauca* 'Conica'
Fiveleaf aralia	*Eleutherococcus sieboldianus*
Ginkgo	*Ginkgo biloba*
Heavenly bamboo	*Nandina domestica*
Japanese pieris	*Pieris japonica*
Japanese plum yew	*Cephalotaxus harringtonia*
Leatherleaf Mahonia	*Mahonia bealei*
Loblolly Pine	*Pinus taeda*
Mimosa	*Albizia julibrissin*
Oregon grapeholly	*Mahonia aquifolium*
Osage orange	*Maclura pomifera*
Paper Birch	*Betula papyrifera*
Pawpaw	*Asimina triloba*
Red yucca	*Hesperaloe parviflora*
River birch	*Betula nigra*
Shortleaf Pine	*Pinus echinata*
Southern waxmyrtle	*Myrica cerifera*
Spicebush	*Lindera benzoin*
Sumac	*Rhus* spp.
Yucca	*Yucca* spp.

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