Department of Horticulture
FACT SHEET
THE CONSUMER HORTICULTURE CENTER

Ornamentals and Deer: Realities and Landscape Plant Options

Many homeowners, golf course superintendents, landscape maintenance firms, and public and private park facility managers express frustration toward the prevalence of deer and the damage they cause through browsing and rubbing their antlers on prized landscape ornamentals throughout the year. Unfortunately, there are few simple solutions to preventing deer damage without eliminating deer completely, which is not an option. In reality, deer management in the landscape will require an integrated pest management (IPM) approach including monitoring deer pressure and population, fencing or excluding deer from prized or highly sensitive areas, using repellents, and choosing less-preferred plant species.

Deer are adaptive and are selective feeders. Choosing your plants carefully combined with using fences and repellents to prevent or reduce damage to your cherished ornamentals may be necessary. Understanding deer and their feeding habits may be helpful in planning your landscape with deer in mind.

Deer feeding habits are affected by:
1) Experience and previous movement patterns
2) Nutritional needs
3) Plant palatability
4) Seasonal plant availability
5) Weather conditions
6) Geographic area
7) Availability of alternative foods

Available food sources will change with the seasons and the local geography, thus changing the level of damage and the types of plants damaged by deer. A plant not commonly browsed during the summer may become a food source for deer in years in which the winter is long and cold. Deep or persistent snow cover on the ground for extended periods may also cause deer to seek alternative browse in the area.

Plants promoted as "deer resistant" often have common characteristics such as hairy, rough, or spiny stem and leaf texture, or the presence of aromatic compounds in the stems or leaves. For example, lavender and boxwood are considtered aromatic plants, whereas lamb's ear and oakleaf hydrangea possess leaf textures thought to be distasteful to deer.

During harsh winters when common food sources are scarce, even plants not normally preferred by deer may be damaged. Early spring succulent growth may also render a reportedly undesirable plant very susceptible. For example, the succulent new growth of *Berberis thunbergii* (barberry) can be a browse choice during the spring and early summer, especially if previously available browse has been eliminated by overgrazing. Similarly, plants commonly not damaged in one region may be damaged in other regions where food options vary. For this reason, care should be taken in relying on lists of plants reported to be not preferred by deer. Your observation and monitoring will help you to determine the plants preferred by deer in your area and under your seasonal and climatic conditions throughout the year. Recording the types of plants not damaged by deer in your area is the best way to create a reliable preference list. Recognizing available browse, weather conditions, seasons, and deer habits will help you to plan your deer and plant management activities. Implementing the use of repellents and physical barriers (fencing), choosing plants wisely, and managing the deer population in the area are the best ways of reducing deer damage in the landscape.

The following list represents a compilation of plants that have been observed by landscapers, nursery operators, horticulturists, researchers, and extension

personnel to be less preferred by deer. This list is not complete and no plant is safe under all conditions. Almost any plant is at risk for deer browsing if other conditions are stressing the herd.The purpose of this list is to provide ideas for selecting plants for high deer damage areas of Pennsylvania. As always, when choosing plants for your landscape, consider the hardiness zone, soil conditions, topography, moisture availability, cultural requirements, relative size and growth rate, and local climatic conditions before purchasing and planting.

Landscape Plants Rarely Damaged by Deer

Trees

Botanical Name	Common Name	USDA Hardiness Zone
Aesculus parviflora	Bottlebrush Buckeye	4–8
Betula albo-sinensis	Chinese Paper Birch	5–6
Betula nigra 'Heritage'	Heritage River Birch	3–9
Betula papyrifera	Paper Birch	2–6
Chamaecyparis pisifera	Japanese Falsecypress	4–8
Cryptomeria japonica	Japanese Cedar	5–6
Juniperus scropulorum	Rocky Mountain Juniper	3–7
Ostrya virginiana	Ironwood	3–9
Picea pungens	Colorado Blue Spruce	3–7
Pinus sylvestris	Scotch Pine	3–7
Pseudotsuga menziesii	Douglas Fir	4–6

Shrubs, Ground Covers, and Climbers

Botanical Name	Common Name	USDA Hardiness Zone
Arctostaphylos uva-ursi	Bearberry	2–6
Asimina triloba	Pawpaw	5–8
Berberis spp.	Barberry	4–8
Buddleia davidii	Butterfly bush	5–9
Buxus spp.	Boxwood	5–9
Caryopteris x clandonensis	Bluebeard	6–9
Cephalotaxus harringtonia	Japanese Plum-Yew	6–9
Gaultheria procumbens	Creeping Wintergreen	3–5
Juniperus horizontalis	Creeping Juniper	4–9
Juniperus conferta	Shore Juniper	5–9
Leucothoe spp.	Leucothoe	5–8
Nandina domestica	Nandina	6–9
Pachysandra procumbens	Allegheny Spurge	5–9
Pachysandra terminalis	Japanese Spurge	4–8
Sambucus canadensis	American Elderberry	4–9
Sarcococca hookeriana var. *humilis*	Dwarf Sweet Box	6–8
Vinca minor	Periwinkle	4–8
Vitex sp	Chastetree	6–9

Annuals, Perennials, and Bulbs

Botanical Name	Common Name	USDA Hardiness Zone
Achillea spp.	Yarrow	3–8
Aconitum spp.	Monkshood	4–8
Ajuga reptans	Bugleweed	3–9
Allium christophii	Star of Persia	4–8
Anethum graveolens	Common Dill	Annual
Antirrhinum majus	Snapdragon	Annual
Aquilegia spp.	Columbine	3–9
Arabis spp.	Rock-cress	4–7
Arisaema triphyllum	Jack-in-the-Pulpit	4–9
Aubrieta deltoidea	Rock Cress	4–8
Aurinia saxatilis	Basket-of-Gold	3–7
Bergenia spp.	Berginia	3–8
Ceratostigma plumbaginoides	Plumbago	5–9
Cimicifuga racemosa	Snakeroot	3–8
Colchicum spp.	Colchicum	5–7
Convillaria majalis	Lily-of-the-Valley	2–7
Dicentra spectabilis	Bleeding Heart	3–9
Digitalis spp.	Foxglove	3–8
Dryopteris marginalis	Wood Fern	3–8
Epimedium spp	Barrenwort	4–8
Euphorbia spp.	Euphorbia	4–8
Fritillaria spp.	Fritillary	5–8
Galium odoratum	Sweet Woodruff	4–8
Helleborus orientalis	Lenten Rose	4–9
Hesperis matronalis	Dame's Rocket	3–8
Hyacinthus orientalis	Hyacinth	3–7
Lamium maculatum	Deadnettle	3–8
Lavandula spp.	Lavender	5–9
Lobularia maritima	Sweet Alyssum	Annual
Lychnis coronaria	Rose Champion	4–8
Matteuccia struthiopteris	Ostrich Fern	4–7
Narcissus spp.	Daffodil	4–8
Nicotiana spp.	Flowering Tobacco	Annual
Osmunda regalis var. *spectabilis*	Royal Fern	3–10
Papaver orientale	Oriental Poppy	3–7
Pelargonium graveolens	Scented Geranium	10
Penstemon digitalis 'Husker Red'	Husker Red Penstemon	3–8
Pervoskia atriplicifolia	Russian Sage	5–9
Pulmonaria sp.	Lungwort	3–8
Rheum rhabarbarum	Rhubarb	4–7
Santolina chamaecyparissus	Lavender Cotton	6–8
Scilla spp.	Squill	2–8
Stachys byzantina	Lamb's Ears	4–8

Annuals, Perennials, and Bulbs

Botanical Name	Common Name	USDA Hardiness Zone
Tagetes spp.	Marigold	Annual
Tanacetum vulgare	Common Tansy	3–9
Thymus spp.	Thyme	3–8
Tiarella cordifolia	Foam Flower	3–8

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