

DEER RESISTANT PLANTS

Recommended for Central and Southeastern NC Landscapes

Charlotte Glen, NC Cooperative Extension—Chatham County Center



Deer can wreak havoc on a landscape in a matter of just a few nights. There are many options to reduce the risk of deer damage in landscapes, such as applying repellents on a regular basis and restricting access through the use of fencing. One of the easiest ways to reduce deer damage in your yard is

to landscape with plants deer prefer not to eat. This fact sheet is intended to serve as a guide for choosing landscape plants resistant to deer feeding in North Carolina. Since a starving deer will eat anything to stay alive, no plant is guaranteed!

Deer Feeding Preferences

The plants deer prefer to eat vary from region to region and can even change seasonally. In the lists on the following pages, deer feeding preferences are classified as follows:

Frequently Damaged

Plants that are deer favorites. These are the first plants deer will seek to feed upon.

Occasionally Damaged

These are the plants deer will turn to once their favorites are depleted.

Seldom Damaged

Plants that deer will rarely eat unless there are no other options. Plants that are in **bold print** are extremely resistant to deer feeding.

Using a combination of a variety of methods to deter deer will give the most dependable results. To find out more about additional strategies to minimize deer damage in your landscape, visit the online publications listed in the **Learn More** section at the end of this fact sheet.

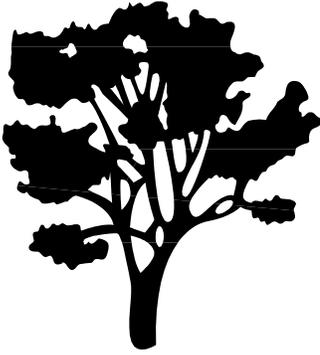
Tips on Deer and Plants

- **No plant is deer proof!** When hungry, deer will eat anything to survive. During stressful times such as drought, plants that are usually avoided may be damaged.
- Deer will eat almost **anything in spring**, as tender new growth emerges from plants. Deer prefer vegetation that is soft to the touch and high in water content. They especially relish **flower buds**.
- **Over fertilized** and **over watered** plants are particularly lush and appealing to deer.
- **Deer resistant does not mean deer proof!** These are plants deer prefer not to eat. Common characteristics of plants that deer prefer not to eat include:
 - ⇒ Plants with thorny or prickly leaves or stems
 - ⇒ Plants with strong scents and pungent tastes, such as herbs
 - ⇒ Plants that are poisonous or produce thick, latex-like sap
 - ⇒ Plants with hairy leaves

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LANDSCAPE TREES



Deer injure trees in two ways: By eating foliage and twigs, and by rubbing against the bark with their antlers, which is especially damaging to young trees or

those with thin bark. Wire cylinders and other protective devices are available to protect the trunks of young trees from this type of damage.

The shape and mature size of a tree will greatly determine its susceptibility to grazing damage. Damage is most common on trees that are either young and still small enough to reach, those that are low branched, or those that do not grow very large. In deer prone landscapes, trees that grow tall and hold their branches high are the best choice, though they may need to be protected until they are tall enough to be out of a deer's reach. Trees can be protected individually with wire cages, or planted in an area of the landscape that is fenced off.

* = Plants native to the Southeastern USA

Bold plants are particularly resistant to deer feeding

Frequently Damaged	
Common Name	Scientific Name
Redbud*	<i>Cercis canadensis</i>
Atlantic White Cedar*	<i>Chamaecyparis thyoides</i>
Fringe Tree, Old Man's Beard*	<i>Chionanthus virginicus</i>
Crabapples	<i>Malus</i> species
Cherries and Plums	<i>Prunus</i> species
Pears	<i>Pyrus</i> species

Occasionally Damaged	
Common Name	Scientific Name
Japanese Maple	<i>Acer palmatum</i>
Red Maple*	<i>Acer rubrum</i>
Serviceberry*	<i>Amelanchier</i> species
Dogwood*	<i>Cornus florida</i>
Kousa Dogwood	<i>Cornus kousa</i>
Witch Hazel	<i>Hamamelis</i> species
'Foster's' Holly* 'Savannah' Holly* 'East Palatka' Holly*	<i>Ilex</i> x <i>attenuata</i> hybrids
'Nellie Stevens' Holly	<i>Ilex</i> x 'Nellie Stevens'
Goldenrain Tree	<i>Koelreuteria paniculata</i>
Saucer Magnolia	<i>Magnolia soulangiana</i>
Dawn Redwood	<i>Metasequoia glyptostroboides</i>
Bradford Pear	<i>Pyrus calleryana</i>
Oaks*	<i>Quercus</i> species
Willows	<i>Salix</i> species

Seldom Damaged	
Common Name	Scientific Name
Red Buckeye*	<i>Aesculus pavia</i>
River Birch*	<i>Betula nigra</i>
Deodar Cedar	<i>Cedrus deodora</i>
Hawthorn*	<i>Crataegus</i> species
Japanese Cedar	<i>Cryptomeria japonica</i>
Ginkgo	<i>Ginkgo biloba</i>
Honey Locust*	<i>Gleditsia triacanthos</i>
American Holly*	<i>Ilex opaca</i>
Eastern Redcedar*	<i>Juniperus virginiana</i>
Crape Myrtle	<i>Lagerstroemia</i> hybrids
Southern Magnolia*	<i>Magnolia grandiflora</i>
Sweetbay Magnolia*	<i>Magnolia virginica</i>
Black Gum*	<i>Nyssa sylvatica</i>
Pines*	<i>Pinus</i> species
Carolina Cherrylaurel*	<i>Prunus caroliniana</i>
Japanese Flowering Cherry	<i>Prunus serrulata</i>
Live Oak*	<i>Quercus virginiana</i>
Bald Cypress*	<i>Taxodium distichum</i>
Chastetree	<i>Vitex agnus-castus</i>

EVERGREEN SHRUBS

Seldom Damaged	
Common Name	Scientific Name
Abelia	<i>Abelia x grandiflora</i>
Century Plant	<i>Agave americana</i>
Wintergreen Barberry	<i>Berberis julianae</i>
Japanese Boxwood	<i>Buxus microphylla</i>
Bottlebrush	<i>Callistemon rigidus</i>
Plum Yew	<i>Cephalotaxus harringtonia</i>
Eleagnus	<i>Eleagnus pungens</i>
Pineapple Guava	<i>Acca sellowiana</i>
Gardenia	<i>Gardenia jasminoides</i>
Chinese Holly	<i>Ilex cornuta</i>
Inkberry	<i>Ilex glabra</i>
Dwarf Yaupon	<i>Ilex vomitoria</i> dwarf cultivars
Anise Shrub	<i>Illicium</i> species
Chinese Juniper	<i>Juniperus chinensis</i>
Leucothoe	<i>Leucothoe</i> species
Japanese Privet	<i>Ligustrum japonicum</i>
Loropetalum	<i>Loropetalum chinensis</i>
Banana Shrub	<i>Michelia fuscata</i>
Wax Myrtle	<i>Myrica cerifera</i>
Nandina	<i>Nandina domestica</i>
Oleander	<i>Nerium oleander</i>
Tea Olive	<i>Osmanthus fragrans</i> <i>Osmanthus heterophyllus</i>
Southern Yew	<i>Podocarpus macrophyllus</i>
Pyracantha	<i>Pyracantha</i> species and varieties
Rosemary	<i>Rosmarinus officinalis</i>
Sweet Box	<i>Sarcococca</i> species
Yucca	<i>Yucca</i> species

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Occasionally Damaged	
Common Name	Scientific Name
Camellias	<i>Camellia</i> species and varieties
Loquat	<i>Eriobotrya japonica</i>
Rose of Sharon	<i>Hibiscus syriacus</i>
Japanese Holly	<i>Ilex crenata</i>
Mahonia	<i>Mahonia bealei</i>
Viburnum	<i>Viburnum</i> species and varieties

Frequently Damaged	
Common Name	Scientific Name
Japanese Euonymous	<i>Euonymous japonicus</i>
Wintercreeper	<i>Euonymous fortunei</i>
Fatsia	<i>Fatsia japonica</i>
Aucuba	<i>Aucuba japonica</i>
Indian Hawthorn	<i>Raphiolepis</i> species and varieties
Pittosporum	<i>Pittosporum tobira</i>
Azaleas	<i>Rhododendron</i> species and varieties
Arborvitae	<i>Thuja occidentalis</i>

PALMS

As a group, palms are **very resistant** to deer feeding. The following palms are hardy in southeastern North Carolina and make interesting landscape additions.

TRUNK FORMING PALMS

Windmill Palm, *Trachycarpus fortunei*

Jelly or Pindo Palm, *Butia capitata*

Palmetto or Cabbage Palm*,

Sabal palmetto

SHRUB FORMING PALMS

Dwarf Palmetto*, *Sabal minor*

Needle Palm*, *Rhapidophyllum hystrix*

Mediterranean Fan Palm,

Chamaerops humilis



DECIDUOUS SHRUBS

Frequently Damaged	
Common Name	Scientific Name
Burning Bush	<i>Euonymus alata</i>
Roses	<i>Rosa</i> species and hybrids
Blueberries*	<i>Vaccinium</i> species
Occasionally Damaged	
Common Name	Scientific Name
Flowering Quince	<i>Chaenomeles speciosa</i>
Smokebush	<i>Cotinus coggryia</i>
Forsythia, Yellowbells	<i>Forsythia x intermedia</i>
Hydrangea	<i>Hydrangea macrophyllus</i> <i>Hydrangea paniculata</i>
Virginia Sweetspire*	<i>Itea virginica</i>
Japanese Spirea	<i>Spiraea x bumalda</i> , <i>Spiraea japonica</i>
Thunberg Spirea	<i>Spiraea thunbergia</i>
Viburnum	<i>Viburnum</i> species
Weigela	<i>Weigela florida</i>
Seldom Damaged	
Common Name	Scientific Name
Japanese Barberry	<i>Berberis thunbergii</i>
Butterflybush	<i>Buddleia davidii</i>
Sweetshrub*	<i>Calycanthus floridus</i>
American Beautyberry*	<i>Callicarpa americana</i>
Blue Mist Shrub	<i>Caryopteris x clandonensis</i>
Clethra, Pepperbush*	<i>Clethra alnifolia</i>
Deutzia	<i>Deutzia gracilis</i>
Fothergilla*	<i>Fothergilla gardenii</i>
Winter Jasmine	<i>Jasminum nudiflorum</i>
Kerria	<i>Kerria japonica</i>
Spring Flowering Spireas	<i>Spiraea cantoniensis</i> , <i>S. nipponica</i> , <i>Spiraea x vanhouttei</i>

* = Plants native to the Southeastern USA

Bold plants are particularly resistant to deer feeding

ORNAMENTAL GRASSES

In general, ornamental grasses are avoided by deer and should be considered **highly resistant** to deer grazing. There are lots of different types of ornamental grasses available. Most are long lived and tough, making attractive and low maintenance additions to the landscape. They provide a nice contrast to shrubs and can be planted in mass as a groundcover. The following ornamental grasses are recommended for this region:

Korean Feather Reed Grass

Calamagrostis brachytricha

River Oats*

Chasmanthium latifolium

Pampas Grass

Cortaderia selloana

Maiden Grass

Miscanthus sinensis

Pink Muhly Grass*

Muhlenbergia capillaris

Panic Grass*

Panicum virgatum

Fountain Grass

Pennisetum alopecuroides
& *Pennisetum orientale*



For more information about these and other ornamental grasses, search NC Cooperative Extension Plants Database:

<https://plants.ces.ncsu.edu/>

In addition to grasses, the database also includes trees, shrubs, herbs, perennials, bulbs, edible plants, natives, ferns, and many more!

VINES AND GROUNDCOVERS

Frequently Damaged	
Common Name	Scientific Name
Clematis	<i>Clematis</i> species and hybrids
Wintercreeper	<i>Euonymus fortunei</i>
English Ivy	<i>Hedera helix</i>

Occasionally Damaged	
Common Name	Scientific Name
Trumpet Vine*	<i>Campis radicans</i>
Goldflame Honeysuckle	<i>Lonicera x beckrottii</i>
Clumping Liriope	<i>Liriope muscari</i>
Spreading Liriope	<i>Liriope spicata</i>
Virginia Creeper*	<i>Parthenocissus quinquefolia</i>
Lady Banks Rose	<i>Rosa banksia</i>
Japanese Wisteria	<i>Wisteria floribunda</i>

Seldom Damaged	
Common Name	Scientific Name
Ajuga, Bugleweed	<i>Ajuga reptans</i>
Crossvine*	<i>Bignonia capreolata</i>
Climbing Fig	<i>Ficus pumila</i>
Carolina Jessamine	<i>Gelsemium sempervirens</i>
Junipers	<i>Juniperus</i> species
Coral Honeysuckle*	<i>Lonicera sempervirens</i>
Patridgeberry*	<i>Mitchella repens</i>
Mondo Grass	<i>Ophiopogon japonicus</i>
Cherokee Rose	<i>Rosa laevigata</i>
Creeping Rosemary	<i>Rosmarinus officinalis</i> 'Prostratus'
Star Jasmine	<i>Trachelospermum asiaticum</i>
Confederate Jasmine	<i>Trachelospermum jasminoides</i>
Large Leaf Periwinkle	<i>Vinca major</i>
Periwinkle, Vinca	<i>Vinca minor</i>

*= Plants native to the Southeastern USA

Bold plants are particularly deer resistant

MORE GROUNDCOVER POSSIBILITIES



There are many perennials, ornamental grasses, and low growing shrubs that make excellent groundcovers when planted in large groups.

To find more plants recommended for use as groundcovers in North Carolina, search the NC Cooperative Extension Plants Database:

<https://plants.ces.ncsu.edu/>

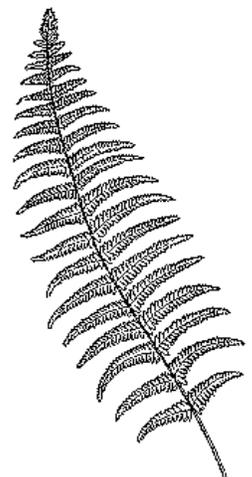
In addition to groundcovers, the database also includes trees, shrubs, herbs, perennials, bulbs, edible plants, natives, ferns, and many more!

FERNS

Deer rarely browse fern foliage, making them an excellent addition to deer ravaged landscapes. Most ferns prefer shade and moist soil and are attractive combined with shrubs and perennials or used as a groundcover. The following ferns are recommended for southeastern North Carolina.

EVERGREEN FERNS

- Autumn Fern,**
Dryopteris erythrosora
- Christmas Fern*,**
Polystichum acrostichoides
- Florida Shield Fern*,**
Dryopteris ludoviciana
- Holly Fern,**
Cyrtomium falcatum
- Tassel Fern,**
Polystichum polyblepharum



DECIDUOUS FERNS

- Southern Maidenhair Fern*,**
Adiantum capillus-veneris
- Lady Fern*,** *Athyrium filix-femina*
- Japanese Painted Fern,** *Athyrium nipponicum* var. *pictum*
- Royal Fern*,** *Osmunda regalis*
- Cinnamon Fern*,** *Osmunda cinnamomea*
- Southern Shield Fern*,** *Thelypteris kunthii*

PERENNIALS

Frequently Damaged	
Common Name	Scientific Name
Daylilies	<i>Hemerocallis</i> species and hybrids
Hosta	<i>Hosta</i> species and varieties

Occasionally Damaged	
Common Name	Scientific Name
Shasta Daisy	<i>Chrysanthemum</i> x <i>superbum</i>
Hardy Ice Plant	<i>Delosperma cooperi</i>
Gerbera Daisy	<i>Gerbera jamesonii</i>
Hardy Hibiscus*	<i>Hibiscus moscheutos</i>
Evergreen Candytuft	<i>Iberis sempervirens</i>
Iris	<i>Iris</i> species and hybrids
Phlox*	<i>Phlox</i> species
Black Eyed Susan*	<i>Rudbeckia fulgida</i> 'Goldstrum'
Sedum	<i>Sedum</i> species
Stoke's Aster*	<i>Stokesia laevis</i>
Verbena*	<i>Verbena canadensis</i>
Speedwell, Veronica	<i>Veronica spicata</i>

Seldom Damaged	
Common Name	Scientific Name
Yarrow	<i>Achillea</i> species and hybrids
Blue Star*	<i>Amsonia</i> species
Columbine	<i>Aquilegia</i> species
'Powis Castle' Artemisia	<i>Artemisia</i> x 'Powis Castle'
Butterflyweed*	<i>Asclepias tuberosa</i>
Cast Iron Plant	<i>Aspidistra elatior</i>
False Indigo*	<i>Baptisia</i> species
Angel's Trumpet	<i>Brugmansia</i> species and hybrids
Leadwort	<i>Ceratostigma plumbaginoides</i>
Green and Gold*	<i>Chrysogonum virginianum</i>
Coreopsis*	<i>Coreopsis</i> species and hybrids
Dianthus	<i>Dianthus gratianopolitanus</i>
Purple Coneflower*	<i>Echinacea purpurea</i>
Joe Pye Weed*	<i>Eupatorium dubium</i>
Gaura*	<i>Gaura lindheimeri</i>
Blanket Flower	<i>Gaillardia</i> x <i>grandiflora</i>
Lenten Rose	<i>Helleborus orientalis</i>
Coralbells, Alumroot*	<i>Heuchera</i> species and hybrids
Red Hot Poker	<i>Kniphofia</i> species
Lantana	<i>Lantana</i> species
Sleeping Hibiscus*	<i>Malva viscus drummondii</i>
Bee Balm*	<i>Monarda didyma</i>
Catmint	<i>Nepeta</i> species and hybrids
Russian Sage	<i>Perovskia</i> hybrids and varieties
Mexican Petunia	<i>Ruellia brittoniana</i>
Texas Sage*	<i>Salvia greggii</i>
Anise Sage	<i>Salvia guaranitica</i>
Mexican Bush Sage	<i>Salvia leucantha</i>
Purple Heart	<i>Setcreasea purpurea</i>
'Fireworks' Goldenrod*	<i>Solidago rugosa</i> 'Fireworks'
Lamb's Ear	<i>Stachys byzantina</i>
Society Garlic	<i>Tublughia violacea</i>
Prickly Pear *	<i>Opuntia</i> species

HERBS AS ORNAMENTALS

Deer tend to avoid plants with strong fragrances, which makes perennial herbs great choices for deer prone landscapes. In general, herbs grow best in full sun and well drained soils. The following perennial herbs are attractive in the landscape and grow well in southeastern NC.

Thyme, *Thymus* species
Fennel, *Foeniculum vulgare*
Sage, *Salvia officinalis*
Chives, *Allium schoenoprasum*
Oregano, *Oreganum* species
Mint Marigold, *Tagetes lucida*
Tansy, *Tanacetum vulgare*
Anise Hyssop, *Agastache foeniculum*
Southernwood, *Artemisia abrotanum*
Mexican Oregano, *Poliomentha longiflora*
French or Spanish Lavender, *Lavandula stoechas*
Lavender Cotton, *Santolina chamaecyparissus* and *S. virens*



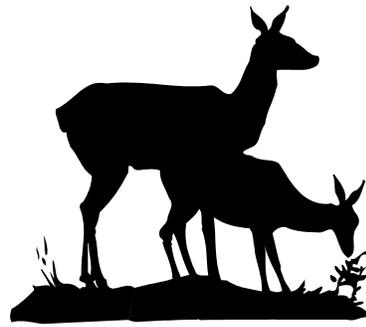
Also, annual herbs such as **basil**, **Cuban oregano**, and **perilla** make great additions to containers or bedding displays!

ANNUALS

Frequently Damaged	
Common Name	Scientific Name
Celosia	<i>Celosia argentea</i>
Impatiens	<i>Impatiens</i> species
Sweet Potato	<i>Ipomoea batatas</i>
Johnny Jump Ups	<i>Viola tricolor</i>
Pansies	<i>Viola x wittrockiana</i>

Occasionally Damaged	
Common Name	Scientific Name
Flowering Kale	<i>Brassica oleracea</i>
Sunflowers	<i>Helianthus annuus</i>
Moss Rose, Purslane	<i>Portulaca</i> species
Mexican Sunflower	<i>Tithonia rotundifolia</i>

Seldom Damaged	
Common Name	Scientific Name
Ageratum	<i>Ageratum houstonianum</i>
Snapdragons	<i>Antirrhinum majus</i>
Begonia	<i>Begonia semperflorens</i>
Ornamental Peppers	<i>Capsicum</i> species
Cleome	<i>Cleome hassleriana</i>
Coleus	<i>Solenostemon scutellarioides</i>
Cosmos	<i>Cosmos bipinnatus</i>
Polka Dot Plant	<i>Hypoestes phyllostachya</i>
Melampodium	<i>Melampodium padulosum</i>
Pentas	<i>Pentas lanceolata</i>
Cuban Oregano	<i>Plectranthus</i> species
Mealycup Sage	<i>Salvia farinacea</i>
Marigold	<i>Tagetes</i> species
Curry Plant	<i>Helichrysum angustifolium</i>
Vinca	<i>Catharanthus roseus</i>
Dusty Miller	<i>Senecio cineraria</i>
Zinnias	<i>Zinnia</i> species
Petunias	<i>Petunia</i> species



ZONING DEER OUT OF THE LANDSCAPE

Sometimes there are plants you just want to grow no matter what. Maybe it was one of your mother's favorites or something that reminds you of a special occasion in your life. What happens if you have deer problems and one of your 'can't live without it' plants happens to be a deer favorite? Fencing off your entire yard can be very expensive, while constantly reapplying repellents soon becomes a time consuming task.

One approach creative gardeners have borrowed from the xeriscape concept is to divide the landscape into **zones**. Deer prone plants are only planted in areas **closest** to the house, that are easiest to manage intensely. This zone is either protected from deer by fencing or regular application of repellents. In the area furthest away from the house only **highly deer resistant plants** are used. In the mid-zone, or area between, less resistant plants can be used with the understanding that they may receive **occasional** damage.

BULBS

Frequently Damaged

Tulips and **Crocus** are deer favorites! Neither perennialize well in this area and should be treated like annuals. Summer blooming **lilies** are also frequently eaten by deer.

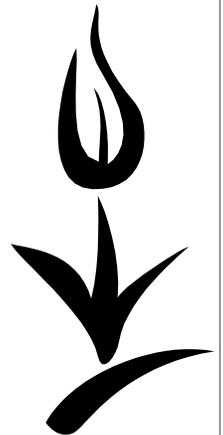
Occasionally Damaged

Grape hyacinths (*Muscari* species) and **dahlias** are both occasionally browsed by deer. Both perennialize fairly well in south-eastern North Carolina.

Seldom Damaged

Many of the bulbs that come back reliably year after year in this area are also deer resistant. Spring blooming perennial bulbs include **daffodils**, **summer snowflake** (*Leucojum aestivale*), **Amaryllis**, **Spanish bluebells**, and **starflower** (*Ipheion uniflora*).

Deer resistant summer blooming perennial bulbs include **Agapanthus**, **Crinum lilies**, and **Crocasmias**.



LEARN MORE!

To learn more about managing deer and reducing damage through resistant plant landscaping, fencing, repellents, and other options visit:

<http://go.ncsu.edu/managingdeer>

For More Information about the plants listed and other garden and landscape topics:

For more detailed information about each plant and to see images, visit the NC Cooperative Extension online **Plant Database**:

<http://plants.ces.ncsu.edu/>

Visit NC Cooperative Extension's Gardening Portal for all your garden, lawn and landscape information needs:

<https://gardening.ces.ncsu.edu/>

Visit your local Cooperative Extension center to learn more about gardening and landscape care.

Find your local Extension center at: <http://www.ces.ncsu.edu/>



Look for this symbol to post your questions to be answered online via Extension's 'Ask an Expert' widget.

Prepared by:

*Charlotte Glen, Agriculture Agent – Horticulture
North Carolina Cooperative Extension – Chatham County Center*



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