Deer Resistant Plants for Southeastern NC

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Minimizing Deer Damage

- Understanding Deer Behavior
- Repellents
- Fencing
- Resistant Plants
- Deer Favorites to Avoid
Understanding Deer Behavior

- Browsers, not grazers
  - Eat woody and broadleaf plants, not grasses
  - Reach up to 6’
- Prefer woodland edge and waterways
  - Readily adapt to suburban areas
- No upper teeth
  - Jerk stems – ragged, torn edges
  - May pull up annuals, perennials
- Creatures of habit
  - Previous damage often indicates future damage potential
- Selective feeders

Using Repellents

- Basis of action:
  - Contact – taste
  - Area – odor
- Best in areas of low to moderate feeding pressure
- Alternate products
- Reapply most every 4-6 weeks and after rain
- Most effective when applied before damage begins
Contact Repellents

- Make plants taste bad
- Must treat up to 6’ from ground

Rotten Egg Products
- Works by odor and taste
- Deer Away, Havahart, etc.
- Most effective in Alabama study
- Hold up longer, 2-6 months
- Not for edible plants!

Contact Repellents

- Thiram – fungicide
  - Nott’s Chew-Not, Bonide Deer Repellent, etc.
  - Dormant trees and shrubs
  - 2nd most effective in Alabama study
  - Vapor-Gard increases resistance to weather
  - Also deters rabbits and rodents

- Hot sauce, garlic oil
  - Reapply frequently
  - Effectiveness ?
Area Repellents

- Repel by smell/odor
- Deer quickly get used to
- Will ignore if hungry!
- Hinder – ammonium soaps
  - Can be used on veg and fruit
  - Reapply every 2-4 weeks
  - Spray directly on plants or as 8’-15’ band around property

Area Repellents

- Milorganite
  - Slow release, organic fertilizer
  - Made from human sewage
  - 6-2-0
- Soap
  - Bars hung in plants
  - Protects 1 yard radius
- Human hair, Predator scent
Deer Fencing

- Effective but expensive
- High pressure areas
  - Vegetables and fruit
- 8’ tall woven wire
- Electric
  - Multi-wire, 10” from ground, 12” apart
  - Angled or upright
- Plans in Wildlife Damage publication

Zoning the Landscape

Divide landscape into zones

- High management
  - Grow plants deer most likely to damage
  - Close to house
  - Protect by fencing or frequent applications of repellents
- Low management
  - Use only highly deer resistant plants
  - Essential next to woods
Deer Resistant Plants

- Less expensive and effective long term
- Deer prefer fertilized and irrigated plants!
- Flower buds are favorites
- Deer will eat almost anything in spring – tender new growth
- Taste preferences vary from deer to deer and season to season!

Deer Resistant Plants

- Deer Resistant ≠ Deer Proof!
- Deer resistant plants are those deer prefer not to eat
  - May nibble but will usually not demolish
- Will most anything rather than starve!
Understanding Plant Names

- **Common Names**
  - “Heavenly Bamboo”

- **Scientific Names**
  - *Genus species*
  - *Nandina domestica*

- **Cultivar Names**
  - ‘Cultivar’
  - *Nandina domestica* ‘Firepower’
  - ‘Firepower’ Nandina
  - Cultivars are genetically identical

Large Trees

- Deer cannot reach once lowest foliage is over 6’
- May damage when young
  - Protect with cages, repellents
- Upright branching
Deer Resistant Small Trees

Japanese Crapemyrtle
*Lagerstroemia fauriei*

- Small shade trees with amazing bark
- ‘Townhouse’
  - 30’ x 25’
- ‘Fantasy’
  - 45’ x 30’
- Sun, good drainage
- Drought, salt, pH tolerant
- Parent of modern hybrids
National Arboretum Hybrids

- ‘Miami’
  - upright to 20’, dark pink flowers, good bark
- ‘Choctaw’
  - upright vase to 20’, clear bright pink flowers, good bark
- ‘Natchez’
  - spreading vase to 25’, white, exceptional bark
- ‘Muskogee’
  - lavender pink, Upright to 20’ x 15’
- ‘Osage’
  - clear pink, Pendulous branching to 12’ x 10’
- ‘Sioux’
  - bright pink, Upright to 15’ x 12’

Choosing Crapemyrtles

Consider:

- Mature Size
  - Range: 5’ – 35’!
- Growth Habit
- Bark
- Fall Color
- Mildew Resistance
- Flower Color

All are deer resistant
Vitex, Chaste Tree

- *Vitex agnus-castus*
- Large shrub or multi-stemmed tree
- 10’-15’ high and wide
- ‘Shoal Creek’ – leaf spot resistant
- Aromatic blue flowers all summer
- Sun, well drained soil
- Drought, salt and pH tolerant
Southern Wax Myrtle

- *Morella cerifera*
- Sun – Lt. shade, moist to dry soil
- 10’-15’ x 10’-15’
- Dwarf forms exist
  - Variety *pumila*
- Native, Evergreen
- Exceptionally tough
- Drought, salt and pH tolerant
- Prone to ice and wind damage

Southern Wax Myrtle
Tree Form
Red Buckeye

- *Aesculus pavia*
- 10’-20’
- Attracts hummingbirds
- Blooms mid-spring
- Understory tree, more open in shade

Deer Resistant Evergreen Shrubs
Florida Anise

- *Illicium floridanum*
- 6’ x 4’
- Wet to Moist Soil
- Part to Full Shade
- Deer Resistant
- Evergreen
- Spring Flowers

Anise Shrub

*Illicium parviflorum*

- To 15’ x 10’
- Native to SE US
- Vigorous
  - easily pruned
- Mass, screens
- Can be limbed up to form multi-stem tree
- Large, bold olive green foliage
- Sun, moist to average soil
Chinese Hollies

- *Ilex cornuta*
- Sun or shade
- Drought and Salt tolerant
- Prickly leaves
- Lots of red berries
- ‘Needlepoint’
  - 15’ x 10’
- ‘Dwarf Burford’
  - 8’ x 8’+
- ‘Nellie Stevens’
  - Hybrid, 20’ x 15’
- Much tougher than Japanese Hollies

‘Carissa’
Chinese Holly

- *Ilex cornuta*
  - ‘Carissa’
- 3’-4’ x 4’-6’
- Good for foundations
- Male - no berries
- Not effected by nematodes
‘William Penn’ Barberry

- *Berberis x ‘William Penn’*
- 4’ x 4’
- Sun, well drained soil
- Drought tolerant
- Very thorny
- Bronze-purple in winter
- Yellow flowers, spring
- New growth flushed burgundy
Dwarf Yaupon

- Most are male
- Most mature to 3’-4’ tall and wide
- Tolerates extreme pruning
- ‘Shillings’, ‘Bordeaux’, ‘Nana’
- Much tougher than Japanese Holly and Boxwood

Rosemary

- *Rosmarinus officinalis*
- Tough, evergreen shrub
- Sun, good drainage
- Drought, salt, and pH tolerant
- Ornamental and culinary
  - ‘Arp’ – vigorous upright form, 4’ x 4’
  - ‘Severn Sea’ – arching shrub, 2’ x 4’
  - ‘Prostratus’, ‘Irene’ - trailing
Pineapple Guava

- Acca sellowiana
- Large rounded shrub, to 8’ x 8’ or more
- Can grow as small tree
- May experience cold damage in extreme winters
- Sun, drought tolerant
- Salt and pH tolerant
- Tropical pink and red flowers in May-June
- Fruit in fall (feijoa)

Gardenia

- Gardenia augusta
- Sun – part shade, moist to average soil
- Salt spray tolerant
- Does not tolerate high pH!
- New Cultivars
  - ‘Frost Proof’
    - 3’ x 4’
    - Double flowers
  - ‘Griff’s Select’
    - 3’ x 4’
    - Single Flowers
‘Daisy’
‘Kleim’s Hardy’

‘August Beauty’, ‘Veichii’, ‘Mystery’

Japanese Plum Yew

- *Cephalotaxus harringtonia*
- Shade or sun
- Well drained soil
- ‘Duke Gardens’
  - 3’ x 4’
- ‘Fastigiata’
  - 10’ x 8’
- ‘Prostrata’
  - 3’ x 6’
### Palms

**Trunk Palms**
- **Windmill Palm**
  - Trachycarpus fortunei
  - Part shade, moist

**Shrub Palms**
- **Needle Palm**
  - Rapidophyllum hystrix
  - Shade, moist

- **Dwarf Palmetto**
  - Sabal minor
  - Sun-Shade, wet-dry

**Cabbage Palm**
- Sabal palmetto

### More Deer Resistant Plants

**Trees and Shrubs**
- Lacebark Elm – Ulmus parvifolia
- Bald Cypress – Taxodium distichum
- Ginkgo – Ginkgo biloba
- Southern Magnolia – Magnolia grandiflora
- Chinese Junipers – Juniperus chinensis
- Oleander – Nerium oleander
- Japanese Boxwood – Buxus microphylla
- Abelia – Abelia grandiflora
- Southern Yew – Podocarpus macrophyllus
- Tea Olive – Osmanthus fragrans
- Japanese Barberries – Berberis thunbergii
- Spirea – Spiraea x vanhouttei
Deer Resistant Perennials

Yucca, Adam’s Needle

- *Yucca filamentosa*
- Native
- 2’ x 2’, flower spikes to 5’
- Variegated Selections
  - ‘Bright Edge’
  - ‘Garland’s Gold’
- Sun, good drainage
- Evergreen
- Exceptionally drought tolerant, salt and pH tolerant, deer resistant
Red False Aloe

- *Hesperaloe parviflora*
- Sun, good drainage
- 4’ in flower
- Evergreen
- Drought tolerant, salt and pH tolerant, deer resistant
- Attracts hummingbirds

Artemisia ‘Powis Castle’

- 2’-3’ x 3’-4’
- Mounds of silver, finely cut foliage
- Sun
- Drought tolerant
- Cut back in early spring to prevent legginess
- Blends well
Dianthus, Cheddar Pinks

- *Dianthus gratianopolitanus* hybrids
  - ‘Firewitch’ – dk pink
  - ‘Greystone’ – white
  - ‘Bath’s Pink’
- Evergreen mats of bluish foliage
- Fragrant flowers in spring
- Sun, very drought tolerant
- Salt and pH tolerant

Gaura

- *Gaura lindheimeri*
- Many varieties
  - ‘Pink Cloud’ – 3’ x 2’
  - ‘So White’ – 2’ x 2’
- Full sun
- Poor soil
- Deer resistant
- Texas native
- Blooms from late spring through late summer
**Lantana camara ‘Miss Huff’**

- Hardest Lantana
- Large grower, 4’-5’ x 4’-6’
- Sun, good drainage
- Loves heat, drought tolerant, salt and pH tolerant
- Deer resistant
- Long lived
- Excellent nectar source
- Blooms mid-summer till frost

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**Purple Coneflower**

- *Echinacea purpurea*
- Many varieties
  - ‘Kim’s Knee High’
  - Dwarf to 3’
  - ‘Bravado’
  - ‘White Swan’
- Sun
- Native to E. US
- Blooms all summer
- Attracts butterflies, seeds for birds
New Coneflower Hybrids

**E. purpurea x E. paradoxa**

- ‘Sundown’
- ‘Sunrise’
- ‘Sunset’
- ‘Harvest Moon’

Arkansas Blue Star

- *Amsonia hubrichtii*
- 3’ x 3’
- Sun, native
- Long lived, clump forming
- Flowers in spring
- Yellow autumn color
- Attractive, ferny foliage all season
- Long lasting cutflower
Blue Star
*Amsonia tabernaemontana*

- SE US native
- Moist to average soils
- Sun to part shade
- Long lived
- Good cutflower
- 3’ x 3’
- Blooms spring, yellow fall color
- *Amsonia illustris* – very similar

False Indigo

- *Baptisia* - hybrids and species
- 3’ - 4’ x 2’ - 3’
- Sun to light shade
- Very long lived, clump forming
- Tough!
- SE Natives
Mexican Bush Sage
_Salvia leucantha_

- 4’ x 6’ tall and wide
- ‘Santa Barbara’
  - 3’ tall and wide
- Sun
- Well drained soil, drought tolerant
- Fall blooming
- Loves heat!

‘Black and Blue’ Anise Sage
_Salvia guaranitica_ ‘Black and Blue’

- Sun to part shade
- Moist to average soils
- 3’ – 4’, spreader
- Great for hummingbirds
- Flowers summer, fall
More Salvias

Salvia 'Indigo Spires'
Flowers all summer, 4’-5’

Salvia 'Mystic Blue Spires’
more compact, 2’-3’

Pineapple Sage
Salvia elegans
Sun, dry – average soil
4’ x 4’, fall

Ornamental Grasses

- Deer rarely browse grasses
- Best grasses for SE NC are warm season growers
- Cut back late winter before new growth begins
- Unique texture, persistent, movement
- Many beyond Pampas Grass!!!
Panic Grass

*Panicum virgatum*

- Native to E. US
- ‘Shenandoah’
  - 3’ x 2’, burgundy
- ‘Northwind’
  - 4’ x 2’, upright
- Moist or dry soils
- Sun to light shade
- Tolerates light salt spray

Muhly Grass

*Muhlenbergia capillaris*

- 4’ tall in bloom, 3’ x 3’ mound
- Blooms late fall
- Native to SE in sandy habitats
- Sun, good drainage
- Drought and Salt tolerant
Miscanthus

- Large fall blooming grasses
- Many selections ranging from 3’ – 8’
- Several variegated forms
- Recommended varieties

Hardy Ferns

- Deer rarely browse ferns
- Most prefer moist, shady areas
- Japanese Painted Fern
  - *Athyrium niponicum* ‘Pictum’
  - Newer selections:
    - ‘Ghost’ – hybrid
    - ‘Burgundy Lace’
**Evergreen Ferns**

- Holly Fern
  - *Cyrtomium falcatum*
- Autumn Fern
  - *Dryopteris erythrosora*
- Christmas Fern
  - *Polystichum acrostichoides*

**Cast Iron Plant**

*Aspidistra elatior*

- Tough!
- Full shade, drought tolerant
- Evergreen
- Deer resistant
- 3’ x 3’
- ‘Ginga’
  - Aka ‘Milky Way’
  - Spotted
- Variegated forms available
### More Deer Resistant Plants

#### Perennials
- Crinum Lilies – *Crinum* species
- Joe Pye Weed – *Eupatorium dubium*
- Agastache ‘Blue Fortune’
- Society Garlic – *Tulbaughia violacea*
- Hot Poker Plant – *Kniphofia*
- Spanish Lavender – *Lavandula stoechas*
- Lenten Rose – *Helleborus orientalis*
- Daffodils
- Amaryllis

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### Deer Resistant Summer Annuals

![Deer emblem]
Melampodium

- Tough, easy to grow
- Tolerates drought and poor soil
  - Native of Mexico
- Often self sow
- Varieties
  - ‘Million Gold’, 12”
  - ‘Showstar’, to 18”

‘Profusion’ Zinnias

- Hybrid between creeping and common zinnia
- Great disease resistance
- 15”-18” with mounded habit
- All zinnia good nectar source for butterflies
‘Profusion’ Zinnia

‘Profusion White’

‘Profusion Fire’

‘Profusion Cherry’

Ornamental Peppers

- Many varieties
  - Most are hot
  - Capsicum annuum
- Easy to grow
- Great in containers

‘Black Pearl’
Wax Begonia

- Very adaptable and tough
- Sun or shade, drought tolerant
- Bronze and Green leaf varieties
- White, pink, red flowers
- Stiff, upright to 1’

Periwinkle, Vinca

*Catharanthus roseus*

- Loves heat
- Requires good drainage
- Many varieties
  - ‘Mediterranean’ – low grower, groundcover, baskets
  - ‘Pacifica’ – upright to 12”, many colors
    - Blush, orchid, red, lilac, polka dot, white
- Often self seeds, but reverts to purple
Plants to Avoid!!

Deer Favorites

Deer Favorites
Small Trees

- Redbud
- Atlantic White Cedar
- Fringe Tree
- Fruit Trees
Deer Favorites
Shrubs
- Indian Hawthorn
- Pittosporum
- Euonymous (all)
- Fatsia
- Aucuba
- Azaleas
- Itea

Deer Favorites
Annuals and Perennials
- Ornamental Sweet Potato
- Impatiens
- Celosia
- Pansies
- Daylilies
- Hosta
- Rudbeckia ‘Goldsturm’
- Ivy
- Clematis
Please Visit!

- **NHC Arboretum**
  - Open during daylight hrs., 7 days a week - FREE
  - [www.arboretumnhc.org](http://www.arboretumnhc.org)

- **NHC Cooperative Extension Plant Information Clinic**
  - 6206 Oleander Drive, Wilmington
  - 9am – 3pm, Mon-Fri
  - Call direct at 452-6382

- **Pender County Cooperative Extension**
  - 8am – 5pm, Mon-Fri
  - 801 S. Walker St., Burgaw
  - 259 - 1235
  - [http://pender.ces.ncsu.edu](http://pender.ces.ncsu.edu)

Fact Sheets Available at the Arboretum, 6206 Oleander Drive, and [http://pender.ces.ncsu.edu](http://pender.ces.ncsu.edu)

- Annuals
- Perennials
- Ornamental Grasses
- Small Trees
- Large Trees
- Turf Grasses
- Small Shrubs
- Medium Shrubs
- Large Shrubs
- Vines
- Groundcovers

- Plants for Rain Gardens
- Plants for Wetlands
- Salt Tolerant Plants
- Deer Resistant Plants

• Native plants are marked with a * on all fact sheets, drought tolerant plants are underlined.

• Complete cultural information for all plants is given as well as mature sizes and recommended varieties.
Questions?