Minimizing Deer Damage in Landscapes

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http://go.ncsu.edu/managingdeer

Review these slides and explore online resources to learn more about:

- Repellents
- Deer biology
- Fencing
- More plants!
Chatham County Agriculture and Conference Center

- Hwy 64 west, Pittsboro - near CCCC campus
- Will house:
  - Cooperative Extension
  - Soil and Water Conservation
  - USDA Farm Service Agency
  - NC Forestry Service
  - 800 seat auditorium!

Summer 2016
Extension Master Gardener Volunteer Program

- Extend our reach into local communities, schools, and neighborhoods
- Coming to Chatham County in 2016!
Minimizing Deer Damage

- Repellents
- Fencing
- Scare Devices
- Deer Resistant Plants

Effectiveness depends on population density
Deer Population Density

Approximately 1.35 million deer in NC!
Not evenly distributed

NCWRC
2005
Deer Population Increasing

Source: http://extension.missouri.edu/p/G9479
Deer Population

- Increasing rapidly in urbanizing areas
- No predators
- Limited hunting
- Lots of edge habitat
- Nutrient rich plantings
Localized Dense Populations

- Home range ~1 sq. mile
- Local human behaviors (feeding, hunting bans) result in higher populations
- Contact NC Wildlife Resources Commission for advice on population management at community level
Dense Populations

- Dense deer populations damage ecosystems
  - Prevent forest regeneration
  - Favor growth of invasive plants, such as:
    - Japanese stiltgrass
    - Eleagnus - Silverberry/Autumn Olive
    - Chinese privet
    - Japanese honeysuckle
Dense Population

More deer =
Greater feeding pressure =
Strategies less effective =
Expect some damage
Strategies to Minimizing Damage

- At the home landscape level
- Begins with understanding deer behavior
- Minimize/reduce damage, NOT eliminate!

Tomato plant eaten by deer - Damage tolerances vary!
Understanding Deer Behavior

- **Browsers**
  - Can eat wide range of plants, have preferred species
  - Ruminants
  - Reach up to 6’

- **Do not see color but have acute sense of smell**

Browse line on *Thuja*
Deer Behavior

- Creatures of habit
  - Previous damage often indicates future damage potential
  - Follow established trails

- Prefer woodland edges
  - Want cover (woods) close by when feeding

Landscape damage more common in wooded communities
Deer Behavior

No sharp upper teeth

- Jerk stems – ragged, torn edges
- May strip leaves from stems
- May pull up newly planted annuals, perennials
Deer Behavior

Picky Eaters

- Prefer to eat some plant species over others
- Favor irrigated and fertilized plants and crops!
- Love flower buds and tender new growth

Deer will happily pick around plants to find their favorites!
Deer Behavior

Deer Can Jump!

- Especially when chased
- At least 9’ high, 20’ span
- Don’t like to if they cannot see landing area – poor depth perception
- Prefer to go around, through or under rather than over

Prefer not to jump if can’t see other side
Deer Behavior

Use knowledge of behavior to minimize damage

- Fencing
- Repellents and Scare Devices
- Landscape Design
- Plant Selection

Deer Paradise:
Lush, irrigated, fertilized landscape full of their favorite flowers and shrubs
Relatively open but with cover nearby
Fencing

- Most effective method but most expensive
  - Only option for vegetables and fruits
- Complete enclosure
  - Will search for openings!
- At least 8’ tall if not electric

Wire Mesh Fencing
Deer Fencing

Non-electric

- 8’ solid fence, to ground level most effective
- **Wire mesh**
  - Well anchored at bottom
- **Lower fences**
  - Plant shrubs on inside so deer can’t see landing area
  - Line with wire mesh to prevent going under
Electric Fencing

- Effective, less expensive
- Primarily psychological barrier
- Single or double wire fence - temporary
  - Single, 30”
  - Double, 18” and 36”
  - Bait with peanut butter

Polytape/polywire easier to work with than high tensile wire, not as long-lasting
Electric Fencing

- Offset and slanted designs take advantage of poor depth perception
- Design diagrams:
  - NCWRC
  - Controlling Deer Damage
  - Wildlife Damage Mgmt
Deer Repellents

Reduce damage – do not eliminate it!

- Repel by taste and/or odor
- If taste - spray on plants, ground level up to 6’
- Odor repellents can be applied as band around plants, garden perimeter
- Few can be applied directly to edible plants
Deer Repellents

- Work best when **applied before deer** have established routine feeding patterns
  - Availability of alternate food sources best predictor of success!
- **Must reapply often** (every few weeks to months) beginning 2 weeks before bud break
- Alternate products for best results – see links
### Table 1. Popular Deer Repellents.

<table>
<thead>
<tr>
<th>ActiveIngredient</th>
<th>Mode of Action</th>
<th>Use on Edibles</th>
<th>Longevity</th>
<th>Trade Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salts/fatty acids of ammonia</td>
<td>Odor</td>
<td>Yes</td>
<td>Up to 4 weeks depending on the amount of rainfall</td>
<td>- Hinder - Deerbusters Deer and Rabbit Repellent</td>
</tr>
<tr>
<td>Garlic oil</td>
<td>Odor</td>
<td>Yes</td>
<td>Reapply after a heavy rain</td>
<td>- GD Deer and Insect Repellent - Garlic Barrier</td>
</tr>
<tr>
<td>Capsaicin Castor Oil</td>
<td>Taste</td>
<td>Yes</td>
<td>Up to 30 days depending on the amount of rainfall</td>
<td>- Miller’s Hot Sauce - Scoot Deer</td>
</tr>
<tr>
<td>Predator Urines</td>
<td>Odor</td>
<td>Not Directly</td>
<td>± 30 days</td>
<td>- Coyote, wolf urine—many products available</td>
</tr>
<tr>
<td>Fish and/or beef by-products</td>
<td>Odor/taste</td>
<td>Not within 8 weeks of consumption</td>
<td>± 30 days during dormant season, every 10 to 14 days during the growing season</td>
<td>- Bobbex - Deerbusters Plant Growth Stimulant</td>
</tr>
<tr>
<td>Putrescent egg-based products</td>
<td>Odor</td>
<td>No</td>
<td>1 to 3 months or more</td>
<td>- Deer Away BGR - Rejex - It Deer Chaser</td>
</tr>
<tr>
<td>Thiram fungicide-based products</td>
<td>Taste/odor</td>
<td>No</td>
<td>1 to 3 months or more</td>
<td>- Bonide Chew-Nott - Deerbusters Deer Repellent and Turf Fungicide - Shotgun Deer &amp; Rabbit Repellent</td>
</tr>
<tr>
<td>Blood-based products</td>
<td>Taste/odor</td>
<td>No</td>
<td>1-3 months or more</td>
<td>- Plantskydd - Repellex</td>
</tr>
<tr>
<td>Denatonium benzoate or bitrex</td>
<td>Taste</td>
<td>No</td>
<td>1-3 months or more</td>
<td>- Tree Guard - Ropel, Repel</td>
</tr>
<tr>
<td>Egg, garlic, fish oil, hot pepper, bitrex or some combination</td>
<td>Taste/odor</td>
<td>No</td>
<td>1-3 months or more</td>
<td>- Deerbusters Deer I - Deer Stopper II - Deer Off - Bobbex - Liquid Fence - MGD Deer Repellent - Not Tonight Deer - Deer Blocker</td>
</tr>
</tbody>
</table>
An Overview and Cost Analysis of Deer Repellents  . . . Alabama Extension

<table>
<thead>
<tr>
<th>Repellent Name</th>
<th>Cost/100 sq. ft. area</th>
<th>Cost/100 sq. ft. area/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bobbex</td>
<td>$3.27/ 100 sq. ft.</td>
<td>$19.62/ 100 sq. ft.</td>
</tr>
<tr>
<td>Buck Off</td>
<td>$1.09/ 100 sq. ft.</td>
<td>$13.08/ 100 sq. ft.</td>
</tr>
<tr>
<td>Deer Off Squirrel, Rabbit, &amp; Deer Repellent</td>
<td>$0.91/ 100 sq. ft.</td>
<td>$5.46/ 100 sq. ft.</td>
</tr>
<tr>
<td>Deer Out</td>
<td>$0.25/ 100 sq. ft.</td>
<td>$1.00/ 100 sq. ft.</td>
</tr>
<tr>
<td>Deer Pharm</td>
<td>$0.09/ 100 sq. ft.</td>
<td>$2.16/ 100 sq. ft. **</td>
</tr>
<tr>
<td>Deer Scram Deer &amp; Rabbit Repellent</td>
<td>$1.18/ 100 sq. ft.</td>
<td>$14.16/ 100 sq. ft.</td>
</tr>
<tr>
<td>Deer Stopper Plotsaver Deer Barrier System Kit</td>
<td>$1.00/ 100 sq. ft.</td>
<td>$4.00 / 100 sq. ft.</td>
</tr>
<tr>
<td>Deer Stopper Repellent</td>
<td>$0.31/ 100 sq. ft.</td>
<td>$3.72/ 100 sq. ft.</td>
</tr>
<tr>
<td>Deerbusters Brand Deer Repellent</td>
<td>$0.55/ 100 sq. ft.</td>
<td>$2.20/ 100 sq. ft.</td>
</tr>
<tr>
<td>Hinder</td>
<td>$0.86/ 100 sq. ft.</td>
<td>$10.32/ 100 sq. ft.</td>
</tr>
<tr>
<td>Liquid Fence Deer &amp; Rabbit Repellent</td>
<td>$0.39/ 100 sq. ft.</td>
<td>$5.07/ 100 sq. ft.</td>
</tr>
<tr>
<td>Miller Hot Sauce</td>
<td>$19.93/ 100 sq. ft.</td>
<td>$518.18/ 100 sq. ft.</td>
</tr>
<tr>
<td>No Deer Zone*</td>
<td>$5.99/ 100 sq. ft.</td>
<td>$23.96/ 100 sq. ft.</td>
</tr>
<tr>
<td>Plant Pro-Tec Repellents</td>
<td>$17.55/ 100 sq. ft.</td>
<td>$35.10/ 100 sq. ft.</td>
</tr>
<tr>
<td>Plantskydd</td>
<td>$0.35/ 100 sq. ft.</td>
<td>$1.40/ 100 sq. ft.</td>
</tr>
<tr>
<td>Shake-Away Deer Repellent Granules</td>
<td>$2.49/ linear ft.</td>
<td>$59.76/ linear ft.</td>
</tr>
<tr>
<td>Spotrete F</td>
<td>$0.09/ 100 sq. ft.</td>
<td>$1.07/ 100 sq. ft.</td>
</tr>
<tr>
<td>Tree Guard*</td>
<td>$4.80/ 100 sq. ft.</td>
<td>$14.40/ 100 sq. ft.</td>
</tr>
</tbody>
</table>

*Indicates ready-to-use products

**Calculated for reapplication every 2 weeks

Based on 2010 Pricing
Non-Commercial Repellents

- Bars of soap
- Bags of hair
  - Have some efficacy but must be placed every 3’; replace every 3-4 weeks
- Duke Gardens
  
  **Recipe:** 1 egg mixed in 1 gallon water
Scare Devices

- Motion activated light/sound/water devices
  - On overnight
- Lay chicken wire on the ground?
- Others???

ScareCrow Deer Sprinkler
Zoning the Landscape

Divide landscape into zones based on management intensity

**High Management Zone**

- Typically area closest to home
- Grow plants deer most likely to damage
- Enclose with fencing or protect with frequent applications of repellents/scare devices
Deer Favorites

- Fruit trees and berries
- Vegetables
- Roses (flowers)
- Daylilies
- Azaleas
- Hydrangea
- Clematis
- Most annuals

Many more – listed in online fact sheet
Zoning the Landscape

**Low Management Zone**

- Little actively done to reduce feeding
- Plant only deer resistant species
- Plant diverse range of species
- Essential next to woods
Deer Resistant Plants

- Deer Resistant ≠ Deer Proof!

- Deer resistant plants are those deer prefer not to eat
  - May nibble but usually will not demolish

- Will eat most anything rather than starve!

- Feeding preferences vary from season to season and regionally

Fawns more likely to taste a wide range of plants than adults
Deer Resistant Plants

- Factors that increase feeding pressure
  - High population density
  - Season
    - Greatest pressure winter/early spring
    - New growth in spring prone to damage
  - Weather
  - Food availability elsewhere within range
Deer Resistant Plants

- Plant a diverse range of species – flowers, shrubs, trees
- Include natives and flowering perennials to support other wildlife
  - Songbirds
  - Pollinators
  - Beneficial insects

Diversity is the key to a healthy landscape!
Deer Resistant Plants

- **Fall is the best time to plant**
  trees, shrubs, perennials in the southeast!

- **New plantings attractive to**
  deer - high nutrient status, lush new growth

- **Provide extra protection**
  - Cover or cage with chicken wire
  - Spray repellents
  - Temporary fence

Protect through spring
Deer Resistant Plants

Recommendations based upon:

- Personal observation
- Gardener/landscaper feedback
- Published lists – deer don’t read these!

Focus:

- Evergreen shrubs
- Perennials
- Adapted to central NC
Deer Resistant Plants

Some Common Characteristics

- Thorny stems
- Prickly or hairy leaves
- Tough, fibrous leaves
- Bitter taste
- Strong aromatic scent, herbs
- Ornamental grasses

Panicum ‘Northwind’
Deer rarely bother ornamental grasses
Ornamental Grasses

- As a group, ornamental grasses are highly deer resistant
- Low maintenance – cut back in Jan/Feb
- Most need full sun
- Most are drought tolerant

Pink Muhly Grass, *Muhlenbergia capillaris*
Shade Trees

- Most likely to damage foliage/twigs when young
  - Protect with cages, repellents
- Deer cannot reach once lowest foliage is over 6’ high
- Trees with upright branching grow out of range faster

Ginkgo trees have upright branching
Protect Trees

- Many young trees favorite of deer
- Individual cages 6’ tall
- Leave until foliage out of reach – lowest foliage above 6’
Rubbing

- Very damaging, especially to young trees
- Most common in fall-winter
- No way to repair damage – permanent, sometimes fatal
Protect Trunks

Remember to remove as trees grow!
Small Trees

- More likely to be damaged – branches within deer feeding range

- **Crape Myrtle**
  - Tree forms rarely damaged
  - New, shrub types sometimes damaged

‘Cherry Dazzle’ Crape Myrtle
Choosing Crapemyrtle

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

- Learn more: [http://www.clemson.edu/crapemyrtle](http://www.clemson.edu/crapemyrtle)
Vitex, Chaste Tree

- *Vitex agnus-castus*
- Large shrub or multi-stemmed tree
- Full sun, drought tolerant
- 10’-15’ high and wide
- Aromatic blue flowers all summer
- Bees love it!
Vitex, Chaste Tree

When grown as a shrub, can cut back each year like butterfly bush (back to 2’ tall)

Tree form specimens usually have multiple trunks
Red Buckeye

- *Aesculus pavia*
- Native, blooms mid-spring
- 10’-20’
- Attracts hummingbirds
- Understory tree, best in part shade and moist soil
Evergreen Shrubs

- Frequently damaged in winter
- Palms are very deer resistant. Hardy shrub palms:
  - **Dwarf palmetto**
    - Native coastal SE
  - **Needle palm**
    - Both grow 4’-5’ tall and wide; prefer part shade and moist soil
Low Growing Evergreens

- **Dwarf Yaupon**
  - Very small leaves

- **‘Carissa’ Holly**
  - Larger leaves, single spine on tip

- Both 3’-4’ tall, 4’-5’ wide, sun – part shade, drought tolerant
Inkberry
*Ilex glabra*

- Native
- 4’-5’ x 3’-4’
- Evergreen
- Tolerates moist soil
- Bees attracted to blossoms
- ‘Shamrock’ – 3’-4’ tall and wide
Upright Hollies

Ilex hybrids

- Excellent, long-lived hedges
- Full – part shade, well drained soil
- Most are hybrids between native and Asian species
- Prickly leaves, lots of red berries – many varieties:
  - ‘Needlepoint’, 15’ x 10’
  - ‘Nellie Stevens’, 20’ x 15’
  - Red Hollies – 15’-20’ x 10’
    - ‘Oakleaf’
    - ‘Festive’
    - ‘Cardinal’
    - ‘Robin’
- Deer may strip foliage on new growth in spring or nip tips
Japanese Plum Yew
*Cephalotaxus harringtonia*

- Shade or sun
- Well drained soil
- ‘Duke Gardens’ grows 3’-4’ x 4’-5’
- ‘Fastigiata’ is an upright, columnar variety, 10’ x 4’
Rosemary
*Rosmarinus officinalis*

- Blue flowers Feb-April
- Full sun, well drained soil
- Very drought tolerant
- Ornamental and culinary
- Upright and weeping cultivars available
- **Upright types** grow 4’-6’ tall and wide!
- **Weeping types** grow 2’-3’ tall and 4’-6’ wide
Gardenia

- Sun – part shade
- Well drained soil
- Most varieties 5’ x 5’ or larger
- Extremely fragrant
- New Variety:
  - ‘Crown Jewel’
    - 3’ x 4’
    - Developed at Oakmont Nursery, Chatham County
‘Frostproof’

‘August Beauty’, ‘Veichii’, ‘Mystery’

Gardenia hips

‘Daisy’, ‘Kleim’s Hardy’
**Loropetalum**

*Loropetalum chinense var. rubrum*

- Evergreen, purple leaved shrubs
- Fringy pink spring flowers
- Best in part shade, moist, acid soil
- Many varieties – range from 3’ to 15’ tall depending on cultivar
- Prettiest when not over-pruned!
Cleyera

- *Ternstroemia gymnanthera*
- Sun to full shade
- 8’+ tall x 6’+ wide
- Well drained soil
- Drought tolerant
- Tolerates heavy pruning but more attractive when grown natural
False Holly, Holly Osmanthus

- *Osmanthus heterophyllus*
- 6’-10’ depending on cultivar
- Very prickly leaves!
- Sun - part shade, well drained soil
- Flowers in fall – extremely fragrant
Southern Wax Myrtle

Morella cerifera

- Full sun – lt. shade
- Moist to dry soil
- 10’-15’ x 10’-15’
- Native eastern NC
- Semi-evergreen
- Drought tolerant
- Prone to ice and wind damage
- Winter berries for birds (female shrubs)
Junipers

- Sun good drainage, drought tolerant
- Native - Red Cedar
  - *Juniperus virginiana*
- Many cultivars of Asian species
  - Groundcovers
  - Medium size shrubs
  - Upright shrubs
Deer Resistant Perennials

- Flowers are deer favorites!
- Deer usually avoid plants with silver leaves, hairy leaves, and/or aromatic/herbal fragrances

Catmint, *Nepeta x faassenii*

This deer resistant, drought tolerant, summer flowering perennial has silver, aromatic leaves
Spring Flowering Bulbs

- **Plant in November**

- **Deer favorites:**
  - Tulips, crocus, grape hyacinths
  - Lilies, dahlias

- **Deer resistant:**
  - Daffodils, Summer snowflake, Spanish bluebells, Starflower

Daffodil ‘St. Keverne’
Spanish Bluebell, 
*Hyacinthoides hispanica*

Starflower, 
*Ipheion uniflorum*

Summer Snowflake 
*Leucojum aestivum*
**Helleborus, Lenten Rose**

- *Helleborus* hybrids
- White, pink or maroon nodding flowers in late winter
- 1’ x 2’
- Evergreen foliage
- Shade
- Well drained soil
A few more for shade

- **Leopard Plant**
  - *Farfugium japonicum*
  - Clumps of evergreen, round spotted leaves topped with yellow daisy shape flowers in fall

- **Lungwort**
  - *Pulmonaria* cultivars
  - Somewhat evergreen, spotted leaves
  - Blue/pink flowers spring
Hardy Ferns

- Deer rarely browse ferns
- Most prefer moist, shady areas

Evergreen ferns:

- Holly Fern
  - Cyrtomium falcatum
- Autumn Fern
  - Dryopteris erythrosora
- Christmas Fern
  - Polystichum acrostichoides
Wild Columbine

- *Aquilegia canadensis*
- Native
- Blooms late March - May
- Sun or shade, well drained soil
- 12” – 24” tall in bloom
- Will naturalize in the garden by self seeding
- Establishes best when planted in fall
Green and Gold
Chrysogonum virginianum

- Native
- Light to part shade, moist or well drained soil
- 1’ x 2’
- Evergreen foliage
- Spring flowers
- Var. australis is stoloniferous = spreading, lower growing
Bluestar

Amsonia tabernaemontana

- Native
- Tough, long lived clumping perennial
- Pale blue flowers in spring loved by bees
- 2’ tall and wide
- Glossy green foliage, turns clear yellow in the fall
- Sun to part shade, wet to well drained soil
Arkansas Blue Star

- *Amsonia hubrichtii*
- 3’ x 3’
- Sun
- Long lived
- Flowers in spring
- Yellow autumn color
- Attractive, ferny foliage all season
- Pollinators love it!
False Indigo

- *Baptisia* - hybrids and species
- Native eastern US
- Many cultivars – blue, purple, yellow, white flowers
- 3’ - 4’ x 2’ - 3’
- Sun to light shade
- Bloom late April - May
- Long lived
Yucca, Adam’s Needle

- *Yucca filamentosa*
- Native
- Evergreen
- Sun – part shade
- 2’ x 2’, summer flower spikes to 5’
- Broken roots regenerate new plants
- Very drought tolerant
Artemisia ‘Powis Castle’

- 2’-3’ x 3’-4’
- Mounds of silver, finely cut foliage
- Sun
- Drought tolerant
- Evergreen but cut back in early spring to prevent legginess
Gaura

- *Gaura lindheimeri*
- Sun – light shade
- Drought tolerant!
- Many varieties – white or pink flowers
- 1’ – 4’ tall depending on cultivar
- blooms from late spring through late summer – if trim back each time finishes blooming
Coreopsis, Tickseed

- Several species native to NC
- Sun lovers
- Threadleaf Coreopsis
  - *C. verticillata*
  - Long live
  - Summer blooming
  - Drought tolerant
  - ‘Zagreb’ – 2’ x 2’
Butterfly Weed
Asclepias tuberosa

- Native
- Orange flowers summer – attract many pollinators
- Sun to part shade
- Well drained soil
- Very drought tolerant
- Late to emerge in spring
Support Monarchs –
Plant Asclepias!
Swamp Milkweed
*Asclepias incarnata*

- Native Mountains, Piedmont, northern Coastal counties
- 3’ tall and wide
- Spring/early summer flowers
- Sun to part shade
- Moisture tolerant
- Monarchs! Attracts many pollinators
Lantana

- Sun
- Drought tolerant
- Many varieties – some are annuals
- Perennials:
  - ‘Miss Huff’, 4’-5’ x 4’-6’
  - ‘Chapel Hill Yellow’, 2’x 3’
- Excellent nectar source
- Bloom mid-summer till frost
Salvias

- Sun to light shade
- Drought tolerant
- **Texas Sage**
  - *Salvia greggii*
  - Blooms spring and fall, trim after blooming
  - 2’ – 3’ tall and wide
- **Mexican Bush Sage**
  - *Salvia leucantha*
  - Blooms fall
  - 4’ - 5’ tall and wide!
Mountain Mints
*Pycnanthemum* species

- 12+ species native to NC
- Bloom mid-late summer
- Sun to light shade
- Moist soil
- 3’ tall and wide
- The best pollinator plants!
Joe Pye Weed

*Eupatorium dubium*

- Native to eastern NC
- Sun to light shade, wet to moist soil
- 4’-5’ tall x 3’-4’ wide
- Great butterfly nectar source!
- *E. fistulosum* much taller, more common in piedmont
American Beautyberry
*Callicarpa americana*

- Tough deciduous shrub
- Sun to part shade
- Moist or dry soil
- Magenta berries late summer - attract songbirds
- 4’-5’ tall and wide
- Cut back to 1’-2’ in early spring
Learn More: Going Native Website

http://www.ncsu.edu/goingnative/

Searchable database of NC natives allows you to select for deer resistant plants
Extension Plants Database:
Learn more about recommended plants

http://plants.ces.ncsu.edu/
Plant Profiles:

- Height
- Hardiness
- Soil
- Exposure
- Description
- Images
- More!
Gardening News!

- **Chatham Gardener** email list
  - Sustainable gardening information
  - Weekly email updates
  - What to plant, pest alerts, timely tips
  - Upcoming classes and events

- **To subscribe:**
  - [http://go.ncsu.edu/subscribeCG](http://go.ncsu.edu/subscribeCG)
2016 Extension Gardener Course

- Part 1: Sustainable and Organic Vegetable Gardening
  - March, 4 classes
  - Registration will open late January

- Part 2: Lawns – May

- Part 3: Landscapes - Fall

http://chatham.ces.ncsu.edu/
Learn More:
http://go.ncsu.edu/managingdeer

Visit http://chatham.ces.ncsu.edu to connect with your local NC State Extension team!