#### **Native Plants**



Charlotte Glen,

Statewide Coordinator-Extension Master Gardener Program,

NC STATE

**EXTENSION** 

### Review these slides and explore additional resources on native plants:

http://go.ncsu.edu/natives

#### **Return of the Natives**

- Why plant natives?
- Defining native
- A few great natives for Piedmont landscapes
- Resources to learn more!



Eastern Columbine, Aquilegia canadensis

# Why should native plants be part of residential landscapes?



### Why Plant Natives?

#### Natives are needed to:

- To support a diverse array of insects, birds and animals
- Sustain healthy ecosystems





#### **Healthy Ecosystems**

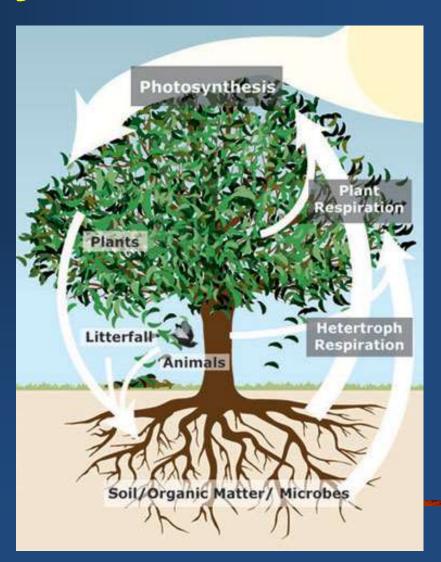
- Provide services
   essential to human
   wellbeing and
   survival, including:
  - Pollination
  - Water and Air Purification
  - Soil Formation
  - Balance Pest Species
  - Climate Stability



Learn More: Millennium Ecosystem Assessment

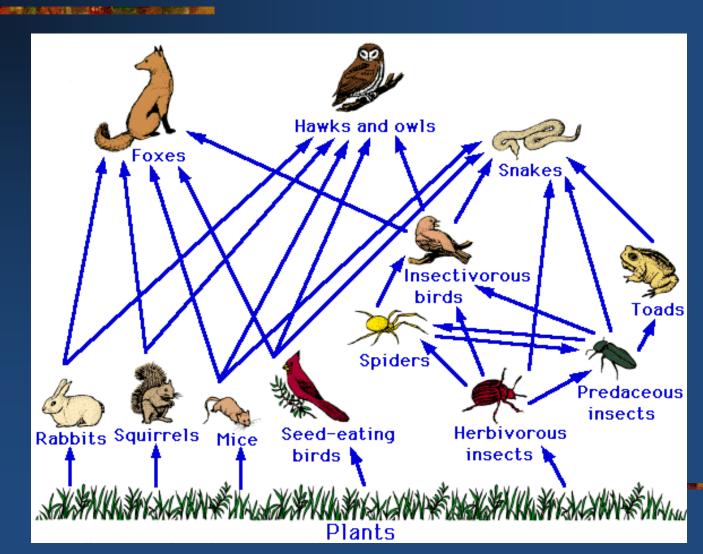
#### **Plants Have Many Functions**

- Protect soil from erosion
- Help cycle nutrients
- Help cycle water
- Support soil microbes



## Most Important Function: Foundation of Food Webs

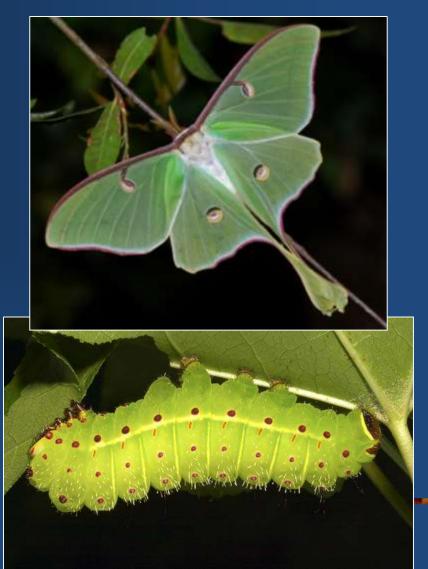
**Plants** capture and convert the sun's energy into a form that can be consumed by other organisms



### Within Ecosystems, All Plants Are Not Equal

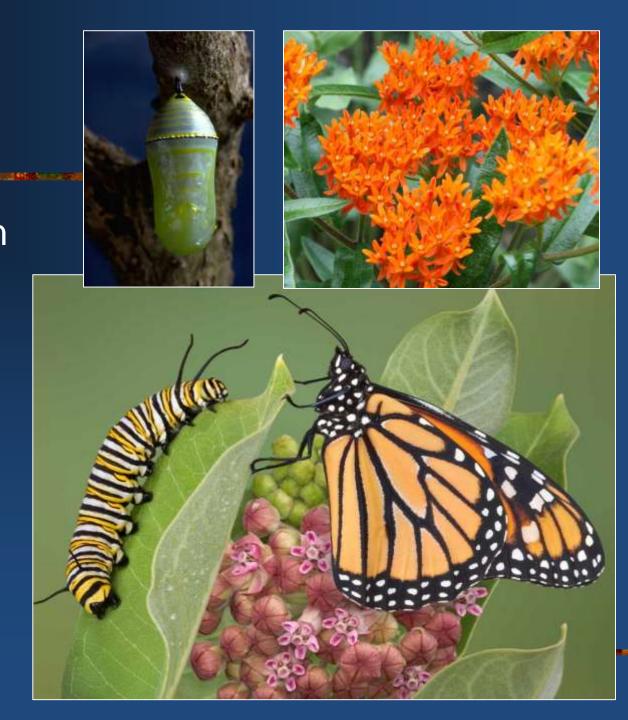
- Most herbivorous insects have adapted to feed on certain plants
- Plants with which they share an evolutionary history
- Plants native to the same region

Luna moth caterpillars love sweet gum



#### Monarchs

- Caterpillars can only survive on species of Asclepias
  - Milkweed
  - Butterflyweed
- 15 species of Asclepias native to NC



### Southeastern Blueberry Bee

- Native pollinator
- Solitary, ground nesting
- Forages primarily on wild blueberries, Vaccinium species within 1 mile of nest
- Active only during blueberry bloom season
- 17 species of Vaccinium native to NC!





### What is a native plant?

From an NC nursery:

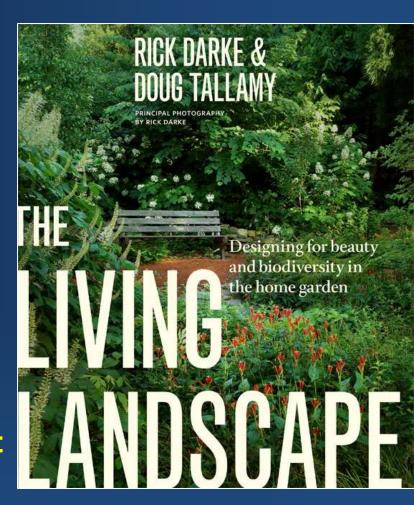
Indicates plants that are native to North America. We use the term "native" to refer to plants which evolved in North America, whether they are indigenous to the southeast or not.

#### **Defining Native**

"A plant or animal that has evolved in

- a given place
- over a period of time
- sufficient to develop complex and essential relationships
- with the physical environment and other organisms

in a given ecological community"



Page 93

#### **Given Place**

- Native is meaningless without location!
- Think ecoregion, not political boundaries
- Greatest benefit: choose plants from local ecoregion



**Ecoregions of North America** 

**Level III: Peidmont** 

#### **Native Range**

#### Consider native range of plants

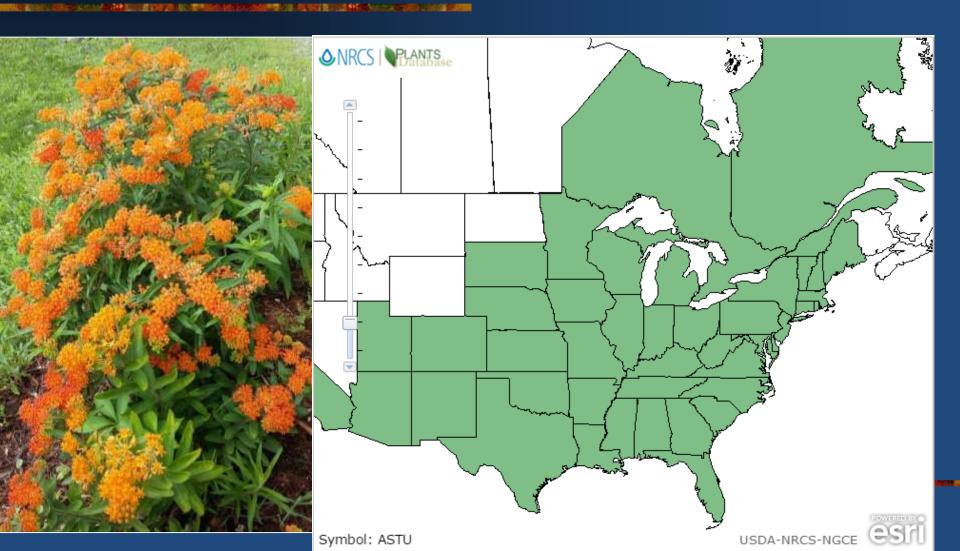
- Some very widespread
  - All of NC; eastern US
  - Typically adaptable to wider range of conditions
- Some very restricted
  - May be adapted to specialized conditions



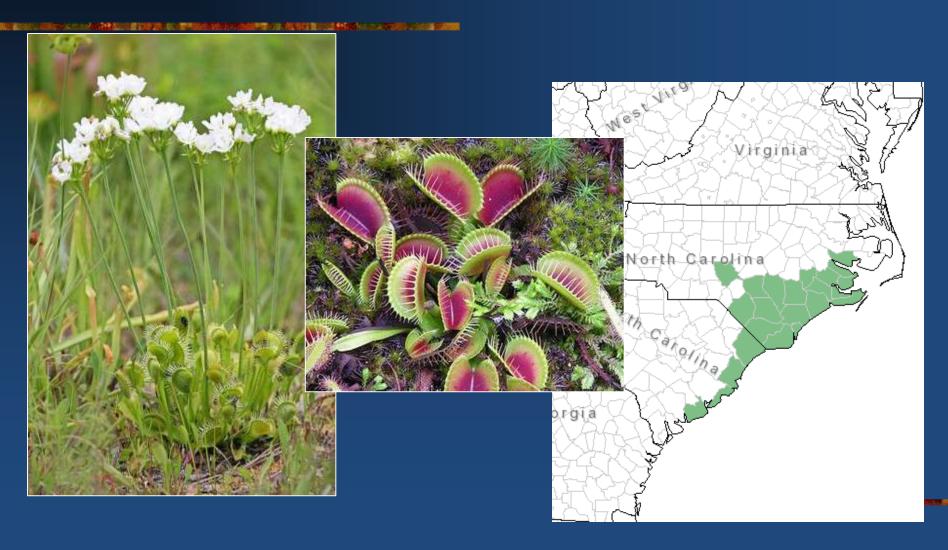


Best source for native range: USDA PLANTS
Database

# Butterflyweed Asclepias tuberosa



# Venus Flytrap Dionaea muscipula



#### Congeners

- Plants in same genus
- For example:
  - Amsonia tabernaemontana
  - Amsonia hubrichtii
- Congeners from southeast US often support local pollinators and beneficial insects even if not native to this region

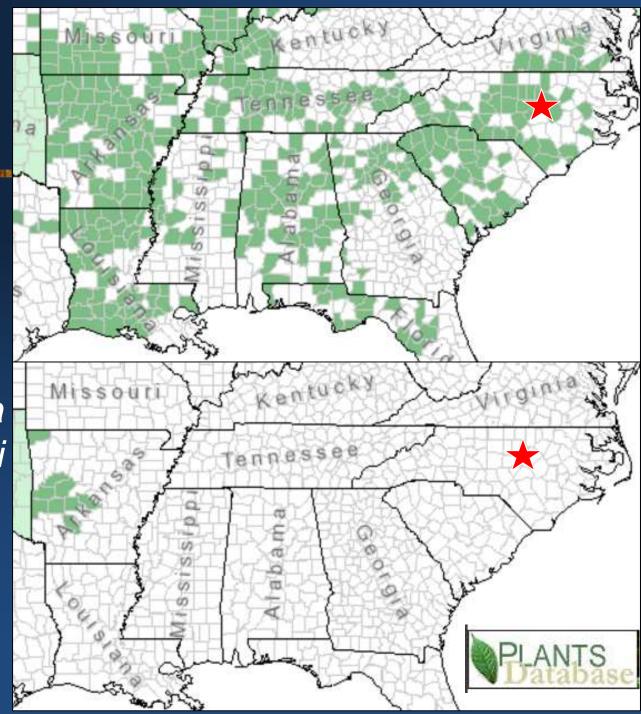


### Native Range

Amsonia tabernaemontana

> Amsonia hubrichtii

Best source for native range: <u>USDA</u>
<a href="https://example.com/pc/background-com/



# Which is best for your site?

#### Consider both:

- Geographical range
- Type of habitat
- Amsonia tabernaemontana
  - Moist woods, stream edges
  - Prefers moist soil, part shade
- Amsonia hubrichtii
  - Rocky outcrops, dry creek banks
  - More sun and drought tolerant



#### **Period of Time**

- 1000's of years
- Does not include plants recently introduced from other regions that have naturalized or become invasive
- Wild doesn't mean native!

Naturalized species, such as daylilies, persist after cultivation. Others are invasive species, such as Japanese honeysuckle





Lonicera japonica

# Complex and Essential Relationships



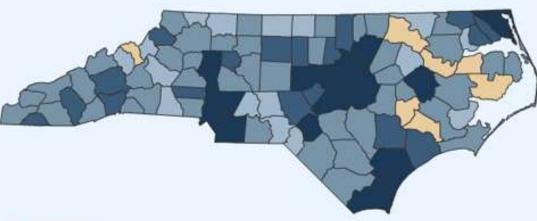




### **TREND: Natural** areas replaced by managed landscapes



0-5% 5-15% 15-25% 25% +









### Managed Landscapes

- Often dominated by non-native plants
  - Turf
  - Exotic trees, shrubs, flowers
  - Focus on "pest free"
- Do not sustain ecosystems they replaced





### A New Paradigm

- Select plants for:
  - Appearance
  - Performance
  - Adaptation to site conditions
- PLUS ability to sustain native species
  - Support ecosystem services
  - Unique to native plants

Holly hybrids provide nectar and pollen for bees, and berries for birds





### More Natives, Not All Native Every Site

#### Native doesn't mean:

- Adapted to all landscapes/sites
- Well behaved
- Long lived
- Easy care or low maintenance especially if planted in the wrong place

There are very few small, evergreen shrubs native to NC



#### More Natives, Not All Natives

Some natives not adapted to highly urban environment



Gloomy Scale

Parking lots are a graveyard for red maple

# Being Native Doesn't Make a Plant Great for Landscaping!

#### Things to consider:

- Spreading tendencies
- Longevity
  - Some species short lived often self seed
  - Rely on disturbance to sustain populations
  - May disappear over time OR become a nuisance
  - May require periodic "editing"



Golden Alexanders

Zizia aurea

#### Weedy versus Invasive

- Invasive refers to nonnative plants capable of harming ecosystems
- Weedy spread vigorously in garden/landscape setting
  - By seed
  - By roots rhizomatous



Saliva lyrata, lyre-leaf sage, self seeds prolifically!

# Making the most of spreaders

- Spreaders that aren't too aggressive make great groundcovers
- Layer under and around taller plants – "living mulch"

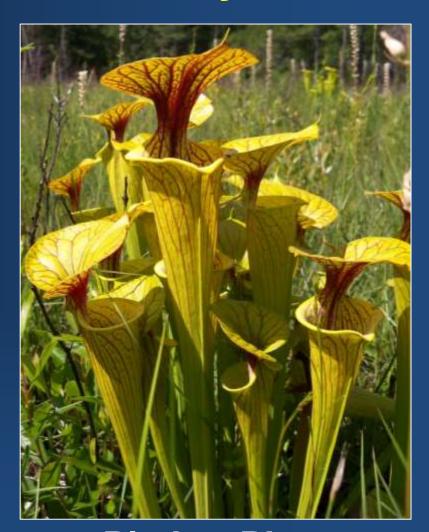
*Viola walteri* 'Silver Gem''



#### Others natives are too finicky



Lady Lupine, Lupinus villosus



Pitcher Plant, Sarracenia flava

#### What about cultivars?



Purple Coneflower, Echinacea purpurea



Echinacea 'Razzmatazz'

#### "Nativars"

- Cultivated varieties of native species
- Selected for unique/desirable feature
- Propagated by cuttings, division to maintain genetic integrity = clones



Cercis canadensis 'Merlot' Purple leaf form of redbud

### Key Question: How different is it?

- Flowering time
- Flower shape
- Flower color
- Foliage color
- Topic of current research
  - Doug Tallamy and others





#### **Key to Success**

### **Choose plants** adapted to site

- Sun/Shade
- Moisture/Drainage
- Soil pH and nutrient levels
- Space to grow

Swamp Rose Mallow Hibiscus moscheutos Needs moist soil!



# Getting the Most Benefit

#### Help plants thrive:

- Prepare the soil
  - Alleviate compaction
  - Incorporate organic matter
- Water during establishment
  - First season
- Mulch!



# Getting the Most Benefit

#### **Ecological Design**

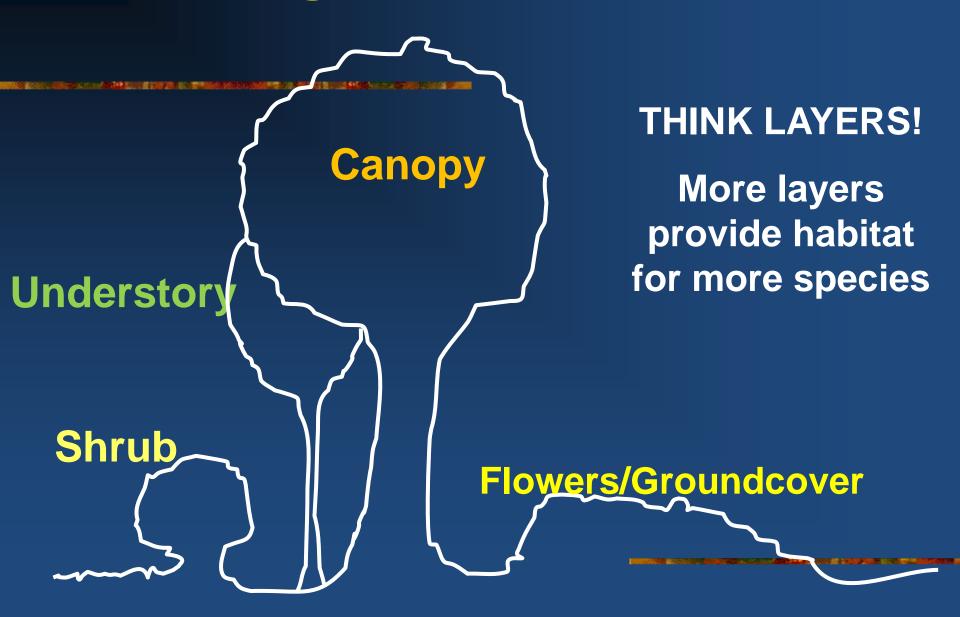
- Majority of plants natives to local ecoregion
- Diversity of species and height ranges
  - Less lawn More trees, shrubs, and flowers
- Year round food supply
  - Flowers, fruits, seeds, leaves





Very diverse!

### Getting the most benefit



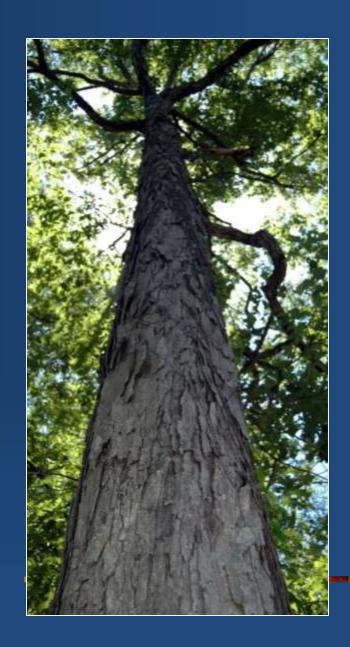
# A Few Great Natives for Piedmont Landscapes

- Serve ecological function:
  - Support other species
- Serve landscape function:
  - Attractive and adaptable
  - Not overly aggressive or finicky
- Can be nursery produced
  - Some only available from specialty nurseries



# Think Layers: Canopy Trees

- The top layer, 40'-80'+ tall
- Provide shade
- Protect soil
- Food source for many species (leaves, nuts/fruits, nectar/pollen)
- Large, unbroken areas of woodland needed



### **Foraging Hubs**

- Trees are the most important source of caterpillars
- Most caterpillar species feed on very narrow range of species
- Feed for part of life cycle
  - usually 2-4 weeks



Rosy maple moth caterpillars feed for a few weeks in late summer

### Caterpillar Hunters

- Nearly all terrestrial birds rear their young on insects, not seeds or berries
- Chickadees are caterpillar specialists
  - Requires 6,000-10,000 caterpillars to fledge a single nest!
- Caterpillars rarely threaten tree health!



#### **Getting the Most Benefit**

## Add trees to connect fragmented areas

- Work with neighbors to:
  - Protect existing natural areas
  - Connect natural areas
- Create larger area for habitat
- Bridges existing areas to create a corridor



## **Many Great Native Trees**

#### Readily Available:

- River Birch, Betula nigra
- Red Maple,
  Acer rubrum
- Black Gum, Nyssa sylvatica
- Southern Magnolia,
   Magnolia grandiflora



#### Oaks

- Support 100's of species
  - Acorns
  - Leaves
  - Habitat
- The best shade trees
- Most are very long lived
- Over 30 species native to NC!



# Oaks in Landscapes

Most commonly planted:

- Willow oak,
  Quercus phellos
- Pin oak,
  Quercus palustris

Willow Oak









### More Great Native Trees: Less Readily Available

- Black Gum, Nyssa sylvatica
- Persimmon,Diospyrus virginiana
- Hickory, Carya species
- American Beech, Fagus grandifolia

NC Forest Service, Tree Seedling Store -



**American Beech** 

http://nc-forestry.stores.yahoo.net

### **Understory Trees and Shrubs**

- Middle layer
- Often missing in managed landscapes
- Prime nesting height for most birds, 5'-15' above ground
- Many have attractive flowers, produce fruits/berries



Middle/understory layer missing in many modern landscapes

#### Redbud

#### Cercis canadensis

- Small deciduous tree
- Blooms early spring before leaves come out
- Lives ~ 20 yrs.
- Sun pt. shade, well drained soil
- Protect from deer when young





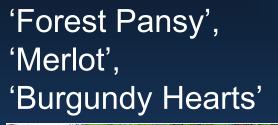


### Leafcutter Bees



### Redbud Cultivars

'Royal White'









#### Dogwood Cornus florida

- 15' 30' tall
- Moist, well drained soil
- Best in afternoon shade
- Spring blooms, excellent fall color
- Many cultivars





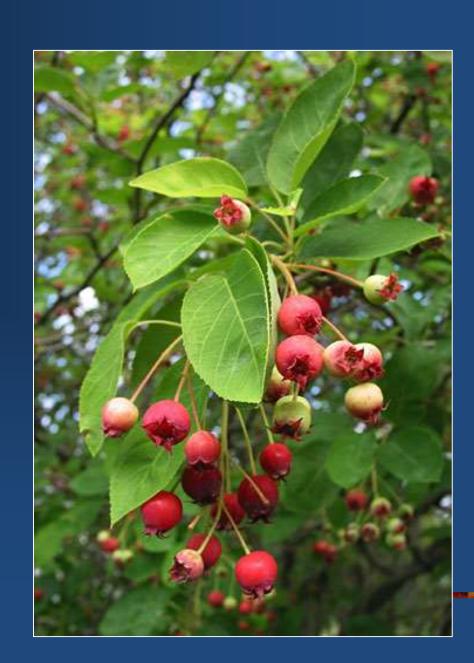
Fall fruits relished by birds





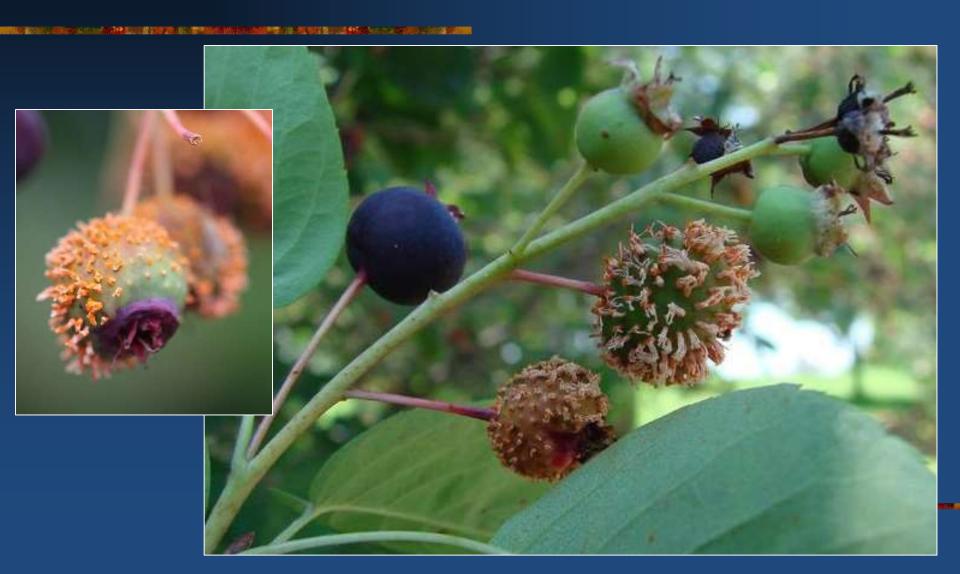
## Serviceberry Amelanchier arborea

- Small tree often multi-stemmed
- Sun to part shade, moist soil
- White flowers in spring
- Sweet berries ripen late May
- Rust can be a problem on fruit and leaves if red cedar trees are nearby





#### Cedar Quince Rust on Serviceberry



#### **Sweet Bay Magnolia**

### Magnolia virginiana

- Smaller cousin of Southern Magnolia
- Grows 20'-30' tall, often with multiple trunks
- Sun to part shade,
- Moist or well-drained soil – tolerates flooding
- Fragrant flowers, spring-early summer
- Deciduous



#### Upright habit; Fall seeds great for birds





#### 'Mt. Airy' Fothergilla

Fothergilla major

- 4'-5'x 4'-5'
- Sun to part shade
- Moist or well drained soil, acidic
- Honey scented spring blooms
- Deer resistant



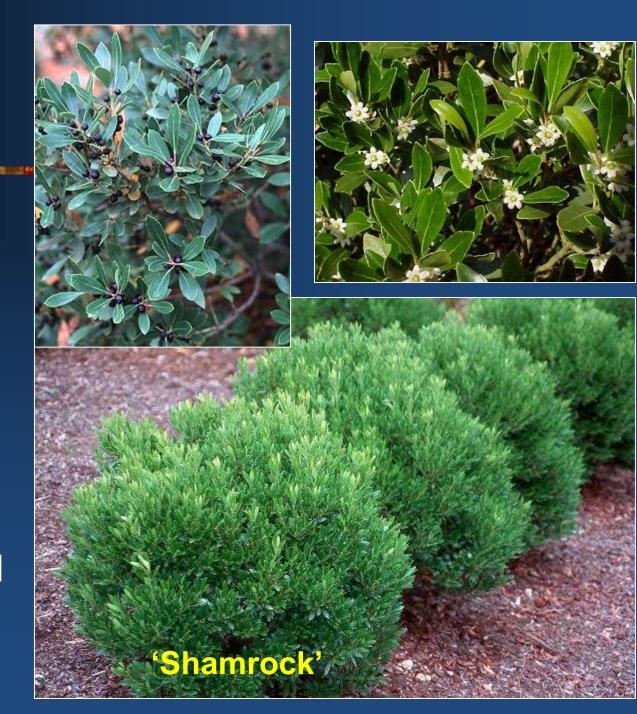


# Fothergilla fall color



### Inkberry Ilex glabra

- Coastal plain, eastern piedmont
- 4'-5' x 3'-4'
- Evergreen
- Tolerates moist soil
- Bees attracted to blossoms



## Coral Honeysuckle

- Lonicera sempervirens
- Coastal plain, piedmont, foothills
- Semi-evergreen vine
- Spring blooming often reblooms
- Hummingbirds!
- Sun, most soil types
- Climbs 10'+







#### **Perennials**

- Ground layer
- Critically important nectar and pollen source for pollinators and beneficial insects
- Most benefit:
  - Plan for something to be in bloom spring-fall
  - At least 3 different types in bloom each season



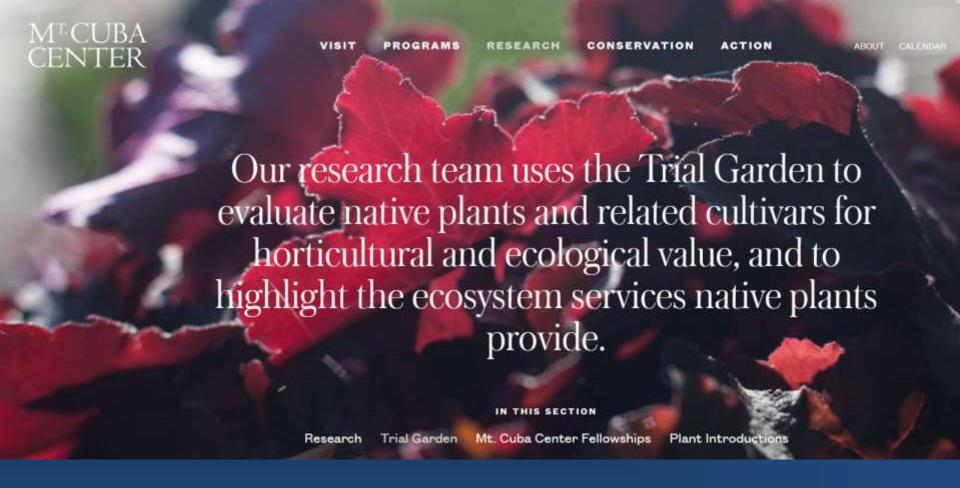
Blossoms with many small flowers clustered together are the richest nectar plants

### **Getting the Most Benefit**

- Plant flowers in groups
- Allows birds and pollinators to feed with less movement
- Also aesthetically pleasing



Black-eyed Susan, Rudbeckia fulgida



Mt. Cuba Center, Delaware Plant trials:

https://mtcubacenter.org/research/trial-garden

#### **Green and Gold**

Chrysogonum virginianum

- Light to part shade, moist or well drained soil
- 1' x 2'
- Evergreen foliage
- Spring flowers
- Self seeds
- Var. australe is stoloniferous, lower growing groundcover



#### **Eastern Columbine**

Aquilegia canadensis

- Blooms March May
- Part sun or shade, well drained soil
- 12" 24" tall in bloom
- Attracts butterflies and hummingbirds
- Will naturalize in the garden by self seeding
- Deer resistant





### Bluestar

#### Amsonia tabernaemontana



## False Indigo

- Baptisia hybrids and species
- 3' 4' x 2' 3'
- Sun to light shade
- Drought tolerant
- Very long lived, clump forming
- Several species native to SE US
- Deer resistant



Baptisia australis

## Baptisia alba



#### 'Purple Smoke'



#### 'Carolina Moonlight'



# Coreopsis, Tickseed

- Several species native to NC
- Sun lovers
- Threadleaf Coreopsis
  - C. verticillata
  - Long lived
  - Summer blooming
  - Drought tolerant
  - 'Zagreb' 2' x 2'





# **Butterfly Weed**

Asclepias tuberosa

- Native statewide
- Orange flowers summer – attract many pollinators
- Sun to part shade
- Well drained soil
- Very drought tolerant
- Late to emerge in spring
- Deer resistant





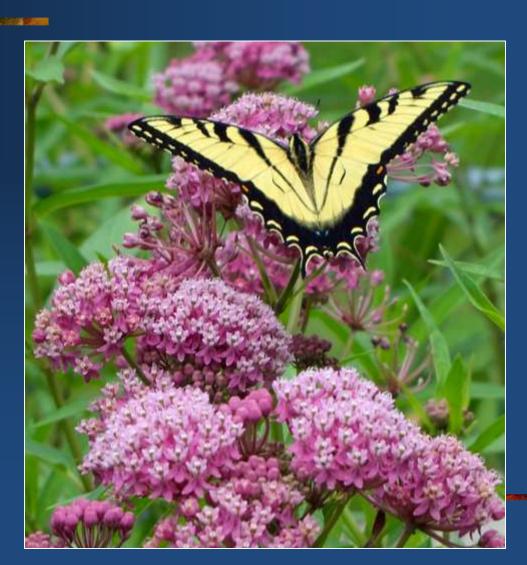


Support Monarchs – Plant Asclepias!



# Swamp Milkweed Asclepias incarnata

- 3' tall and wide
- Summer flowers
- Sun to part shade
- Moisture tolerant
- Monarch larval host
- Attracts many pollinators



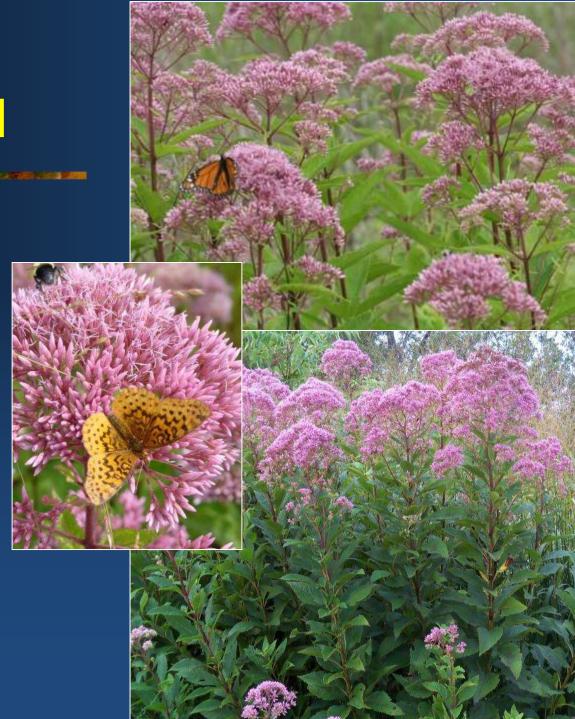
# Mountain Mints Pycnanthemum species

- 12+ species
- Bloom mid-late summer
- Sun to light shade
- Moist soil
- 3' tall and wide
- The best pollinator plants!
- Deer resistant



# Joe Pye Weed

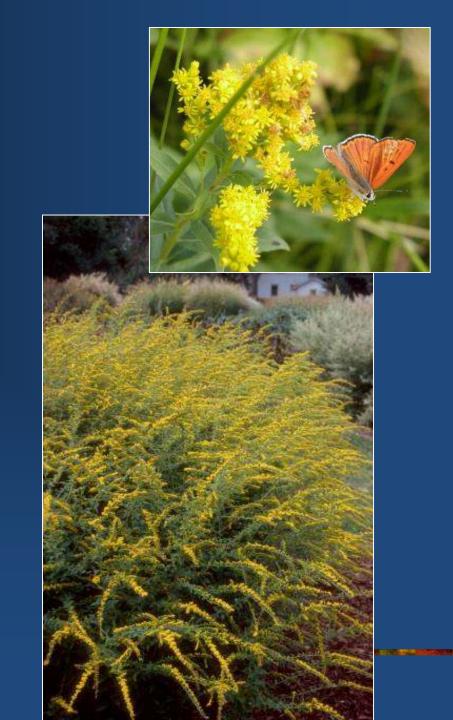
- Sun pt. shade
- Wet to moist soil
- Eutrochium dubium
  - 4'-5' tall x 3'-4' wide
  - More common coast
- E. fistulosum
  - 5'-8' x 3'-4'
  - More common piedmont
- E. purpureum and E. maculatum in Mountains
- Deer resistant



# Goldenrods Solidago species

Several native species – some too vigorous for landscapes

- Solidago rugosa
- Native throughout NC
- cultivar 'Fireworks'
- Grows 3'-4' high and wide
- Sun to part shade, well drained to wet soils
- Blooms late summer nectar for butterflies and many other pollinators



## **Asters**

- Many are native
- Most need sun
- Pollinators!
- Blue Wood Aster, Symphyotrichum cordifolium
  - Shade tolerant!
  - Moist-dry soil
  - 2-3' tall
  - Native statewide



# Switch Grass Panicum virgatum

- Native throughout NC
- Several cultivars,3' 8' tall
- Moist or dry soils
- Sun to light shade
- Stands up well through winter, birds enjoy seeds
- Cut back by late Feb.
- Deer resistant



# Think differently about plants in your landscape:

"A plant that has fed nothing has not done its job"

D. Tallamy, Bringing Nature Home

"If you have a backvard, this book is for you." -Richard Louy, author of Last Child in the Woods Bringing Nature UPDATED AND EXPANDED **How You Can** Sustain Wildlife with Native Plants Douglas W. Tallamy Foreword by Rick Darke

Best bets plant list

## **Learn More**

### **Extension Gardener Handbook**

- Chapters cover many topics
  - Soils, Insects, Landscape Design,
     Vegetables, Flowers, etc.
- Chapter 12 is Native Plants!

NC State Extension



Cardinal flower - Lobelia cardinalis

# Learn More: **Going Native Website**

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

Searchable plant database!

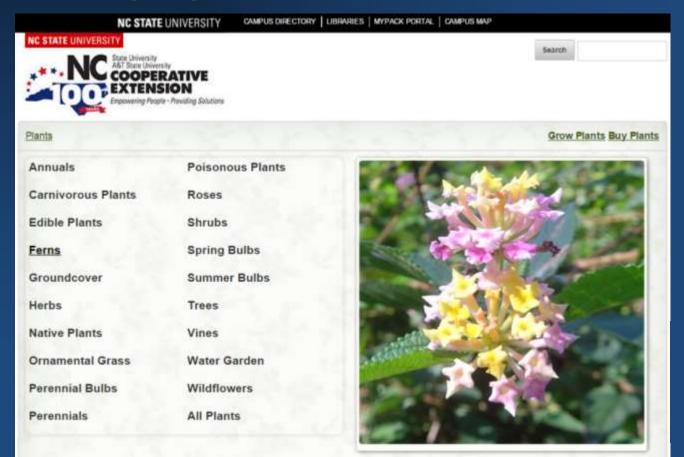
own backvard!



### **Extension Plants Database:**

Can help you select native and non-invasive non-native species for your yard

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



# Plant Profiles:

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

Plants > Native Plants > Hydrangea quercifolia

### Hydrangea quercifolia

This plant has poison characteristics. See below.

### Common Name(s):

Oakleaf hydrangea

#### Cultivar(s):

Snow Queen, Snowflake, Harmony, Pee Wee, Sykes Dwarf, Alice, Little Honey (golden foliage), Munchkin (semi-dwarf), Ruby Slippers (semi-dwarf) Categories:

Native Plants, Poisonous Plants, Shrubs

#### Comment:

Bold leathery leaves; spread of 8 ft.; seeds eaten by birds; mulch to keep root system cool; exfoliating bank on mature plants; wine, orange, and mahogany fall foliage; coarse texture; drought tolerant; native to southeastern US; rapid growth rate

#### Description:

Deciduous shrubs; leaves opposite, simple, stalked, toothed and sometimes lobed; flowers in terminal, round or umbrella-shaped clusters, white, pink, or blue, 4-5-parted, the sterile flowers (around the margin or the entire cluster) are much enlarged.

### Height:

4-8 ft.

#### Foliage

Opposite, simple, bold leathery leaves; 3-8 in. long; wine, orange, mahogany fall color.

#### Flower

4 -12 in, erect panicles of creamy white flowers in summer; fades to pink, then tan; fragrant; good for drying

#### Zones:

5 to 9

### Habit:

Deciduous

#### Sit

Sun to partial shade; prefers moist, well-drained soil but tolerates damp soil

### Texture:

Coarse

#### Forn

Upright, irregular, rounded, multi-stemmed shrub with limited branching; stoloniferous; forms colonies

#### Exposure

Sun to partial shade; moist, well drained soil

Fruit



H. quercifolia 'Snowflake'

Photo by Kingsbrae Garden, CC BY-NC-BA - 2.0



H. quercifolia 'Snow Queen'

Photo by Henryr10, OC BY-NO-ND - 2.0

## **Pollinator Conservation**

http://www.protectpollinators.org



Visit the Pollinator Paradise Garden in Pittsboro!

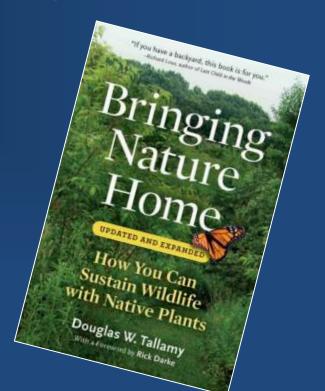
## Learn More!

- NC Botanical Gardens,
   Chapel Hill
  - http://ncbg.unc.edu
- **Duke Gardens**, Blomquist Garden of Native Plants
  - http://gardens.duke.edu
- NC Native Plant Society
  - http://www.ncwildflower.org



## **Great Books to Learn More!**

- Native Plants of the Southeast
  - L. Mellichamp
- Best Native Plants for Southern Gardens
  - G. Nelson
- Gardening with Native Plants of the Southeast
  - S. Wasowski
- Bringing Nature Home
  - D. Tallamy
- The Living Landscape
  - D. Tallamy and R. Darke



## **Questions?**



Learn more:

http://go.ncsu.edu/natives

# The North Carolina Extension Master Gardener Program







A Growing Partnership!

## **NCEMG Program Partners:**

- NC State University
  - NC State Extension
  - Dept. of Horticultural Science
- N.C. Cooperative Extension
  - Center in every NC county
  - EMG Programs in 84 of 100 counties;
     Operate under leadership of horticulture agent
- Gardeners across NC who volunteer their time, knowledge and expertise!
- County government, local organizations and communities



EMGVs of Buncombe County, Healing Garden – VA Center, Asheville

# NC Extension Master Gardener Program, State Level



Extension
Specialist – Urban
Horticulture



Rathleen Moore
Program Assistant – Urban
Horticulture (part-time)
Current projects:

- EMGV training curriculum
- Plant Database



Charlotte Glen
State Coordinator,
NCEMG Program

# NC Extension Master Gardener Program – State Level

Supports Master Gardener volunteers by providing:

Advanced training opportunities, including:

- Plants, Pests and Pathogens webinar series
- EMG College
- Travel Study Tours

### **New Zealand Travel Study Tour**

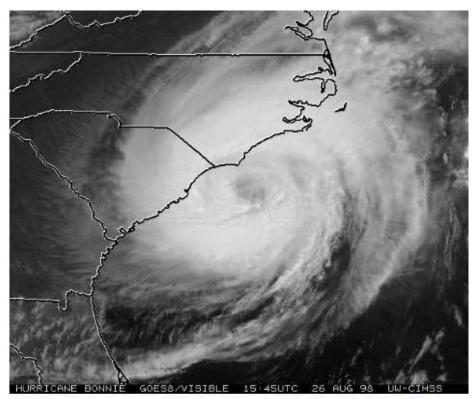
March 1-14, 2019 - Only 2 spots left! \$6585 dble occupancy (airfare not included <a href="http://go.ncsu.edu/2019-nz">http://go.ncsu.edu/2019-nz</a>





# Plants, Pests and Pathogens

- Free webinars
- 4<sup>th</sup> Tuesday, every other month, Feb. – Oct., 10am – noon
- Next webinar: Oct. 23
  - How Weather and Climate
     Affect the Garden,
     NC State Climate Office
- Learn more: go.ncsu.edu/ppp



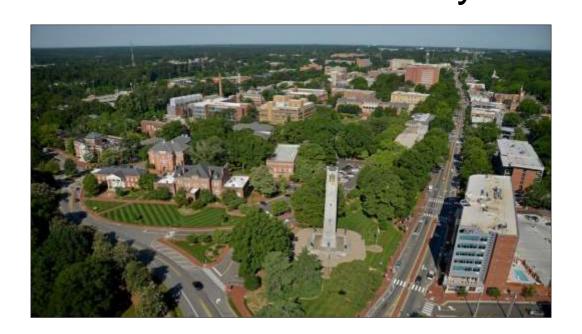
Visible satellite imagery of Bonnie as it approached the North Carolina coast on August 26, 1998. (Image from the CIMSS Atlantic Storm Product Archive)

http://www.nc-climate.ncsu.edu/climateblog

## Save the Date!

# 2019 EMG College

June 6 - 9, 2019 NC State University



# 2019 EMG College "40 Years and Still Growing!"

### Join us for:

- Exciting tours
- Interesting hands-on workshops
- Excellent keynote speakers
- Informative concurrent sessions
- Plenty of opportunities for fun and fellowship!



Will Hooker will lead a tour of 610 Kirby St.

– permaculture landscape

# New & Improved Accomodations!

- Free parking!
- NO bunkbeds!
- Bathrooms ensuite
- Dining facilities onsite
- Double and single rooms available





# NC Extension Master Gardener Program – State Level

# **Supports Master Gardener volunteers** by providing:

- EMGV Intranet, NCSUgarden.com
  - Work with programmer, Chris Cook, and NCSUgarden Mgmt Team
- Recognition opportunities
  - Milestone pins for hours and years of service
  - Search for Excellence





### 2019 Search for Excellence

- Call for applications will go out in January; due late March
  - Seeking group projects that result in significant learning

### Categories:

- Youth Programs
- Demonstration Garden
- Workshop or Presentation
- Community Service
- Innovative Projects
- Research
- Special Need Audiences



2017 Winner – Wake County Ready, Set, Grow Workshops

# NC Extension Master Gardener Program, State Level

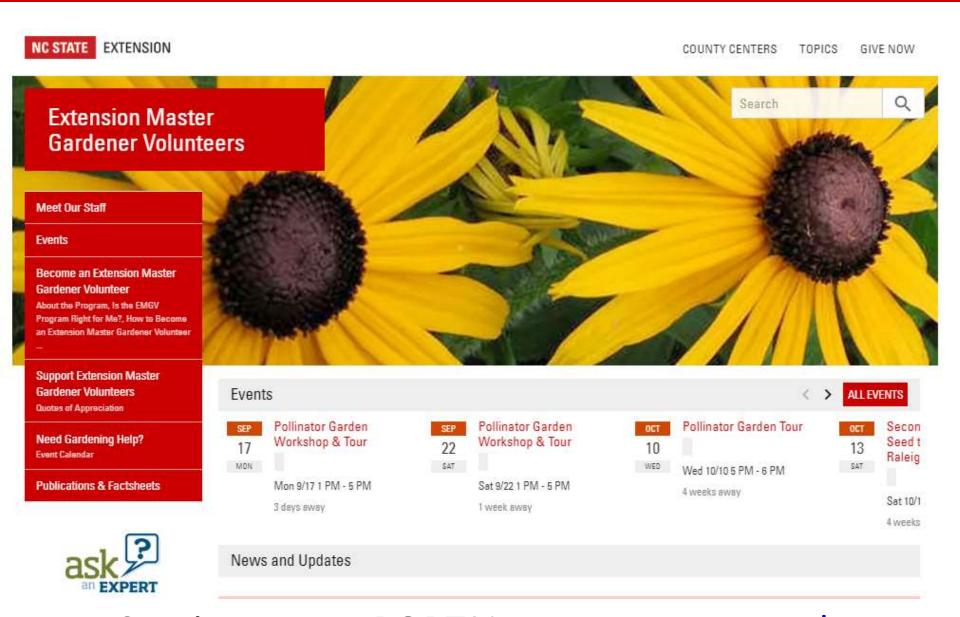
# Provides leadership for statewide program development

- Guidelines and policies
- Manage brand and logo
- Statewide communication
- Evaluate and report impacts
- Program promotion
  - Public website and social media
  - Find us on facebook:
     NC Extension Master Gardener Volunteers



**Extension Master Gardener** 





Coming soon - PORTAL: emgv.ces.ncsu.edu

## **NC EMG Program Guidelines**

### **Available online:**

go.ncsu.edu/EMGV-Guidelines

- Define NC EMG Program policies and operating procedures
- An excellent resource to learn more about the NC EMG Program
- Currently under review taking suggestions!



### Data come from **NCSUgarden**

### **Annual Report**

### Highlights:

volunteers

Volunteer hours, equal to 103 full time positions

97.363 North Carolinians directly reached

Value of volunteer service and in-kind donations

### NC STATE Extension Master Gardener 2017 ANNUAL REPORT

### Extension Master Gardener<sup>SM</sup> Volunteers Embody the Mission of N.C. Cooperative Extension

Across our state. Extension Master Gardener (EMG) volunteers partner with their local N.C. Cooperative Extension county center to connect people with research based information and provide practical solutions that grow NC.

They educate residents to grow healthy people, gardens, landscapes, and communities through safe, effective and sustainable gardening practices. Working with their local N.C. Cooperative Extension county center, Master Gardener

- Empower people to make informed decisions
- Enhance local food security
- Connect children and families with nature
- Cultivate environmental stewardship
- Promote health and wellbeing through gardening, better nutrition and increased physical activity





BURKE COUNTY

### Community Garden Enables Hands-On Learning

For apartment dwellers and those living in mountainous areas, finding space to cultivate a garden can be a major challenge. The community garden created and managed by Burke County Extension Master Gardener volunteers provides this space for 29 local families, making it possible for them to grow their favorite vegetables.

In addition, Master Gardener volunteer led workdays and workshops on sustainable gardening practices ensure everyone has a bountiful harvest.



### Second Graders Explore the Life Cycle of Pollinators

Over 100 second graders in Chatham County gained hands-on experience rearing butterflies from caterpillars and learned about the importance of pollinators during a series of lessons taught by Extension Master Gardener

Chatham County EMG volunteers partnered with North Carolina 4H and NC State Extension to develop the curriculum, which focused on experiential learning and aligned with the learning objectives for NC public schools.



WAKE COUNTY

### Classes Help Beginners Start First Vegetable Garden

One hundred thirteen Wake County residents attended "Ready, Garden, Grow", a comprehensive vegetable gardening class designed and delivered by Extension Master Gardener volunteers.

The three hour class was held at local libraries throughout the county. Beginning gardeners attending the workshop increased their confidence levels and gained knowledge and tools needed to successfully establish their first garden.



### School Garden Grows Vegetables and Pride for High School Students

Extension Master Gardener volunteers worked with students enrolled in the Life Skills class at South Johnston High School to turn a sad place - an old, unused playground - into a glad place where fresh vegetables, pollinator-friendly flowers and civic pride

Throughout the year, EMG volunteers use the garden to teach students how to plan, cultivate and harvest a year around supply of healthy vegetables.

# NC Extension Master Gardener Program, State Level

# Provides leadership for statewide program development:

- Agent training and support
- Budget and fundraising
  - NCEMGV Endowment
  - Logowear
- Liaison to NCEMGVA





# New Logowear Items Now Available! go.ncsu.edu/emg-logowear



- Aprons
- Tote bags
- Cotton shirts
- Additional hats
- Visor and more!

Available with state program logo and county program logo!





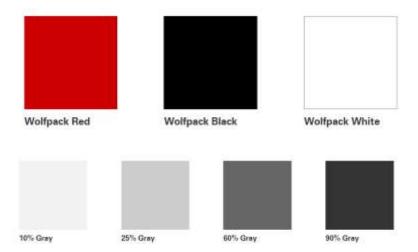




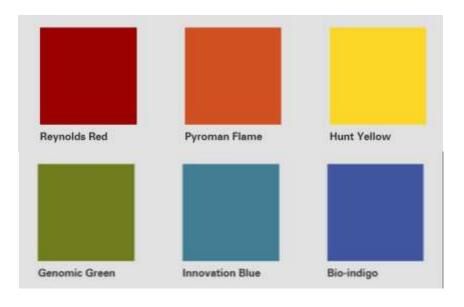
## **Expanded color options for apparel!**

https://brand.ncsu.edu/color

### **Traditional Colors**



### **Expanded Palette**





Can also add watering can icon!

### **Special Requests Welcome!**

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## **NCEMGV** Endowment

- Created to strengthen and support the NCEMG Program
  - Interest funds Search for Excellence Awards
  - Current return ~ \$1500/year
- Help us grow Purchase or renew your EMGV license plate!
- go.ncsu.edu/emgv-license-plate
- Or donate online:
   go.ncsu.edu/support-ncemgv

Act now if you want the watering can design – limited numbers are available!



When existing stocks run out, the design will be updated with the new logo



## NC STATE

### **Extension Master Gardener**

# Stay Connected! Subscribe to NC State EMGV Listserv

go.ncsu.edu/subscribe-emgv

