



# Tucking your garden in for the fall

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Master Gardener interns

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# 30 year old garden, 1/4 acre, outdoor 'rooms'

**Backyard is a fenced shady  
woodland**



**Front yard is bakingly hot,  
no fence, many many deer**



# Meg's Fall goals

1. Increase native shrubs
2. Reduce lawn
3. Prepare container plants for winter

# Inspiration

\* Doug Tallamy Bringing Nature Home

\* New Hope Audubon bird-friendly habitat audit

- 45% decline in insect populations in past 40 years
- If insects were to disappear, so would nearly all flowering plants and the food webs they support leading to extinction of reptiles, amphibians, birds and mammals. E.O. Wilson, 1987
- 83-85% US land is privately owned
- Reverse this decline with a backyard conservation movement

# 7 things to strengthen insect populations & everything else

1. Cut your lawn in half
2. Remove invasives
3. Plant more natives that support the most insects
4. Minimize pesticides
5. Oppose mosquito fogging in your community (control mosquitos at larval not adult stage)
6. Build pollinator gardens with specialist pollinators in mind
7. Put motion sensors on security lights to preserve insects

*Restoring the little things that run the world, Doug Tallamy*

# 1. Increase native shrubs

- Create layers: canopy, understory, woody shrubs, herbaceous, ground
- Focusing on shrub layer
- Screening, structure, texture, color
- Remove non-natives, replace with natives
- Capture stormwater
- Improve bird habitat

# “Layering” with Native Shrubs

- Pittosporum died, replace forsythia
- Adding 3 native arborvitae for screening, **American or Eastern arborvitae, Thuja occidentalis, Emerald ‘Smaragd’** (12 feet height, 3-4 feet spread).
- Layer 2 **Red Sprite Winterberry hollies** in front (3-5 feet height and spread), requires 1 male **Jim Dandy** to pollinate 9-10 female winterberries.

2 Red Sprite Winterberry (*Ilex verticillata*)  
+ 1 Jim Dandy to pollinate





# Native shrub layer

## Dwarf fothergilla gardenii 'Mt Airy'

4-6 feet height  
5 feet spread



## Ilex virginica Saturnalia

3-5 feet height  
3-6 feet spread



## 2. Reduce lawn

- Create dry place to walk with stepping stones, herbs and groundcover
- English thyme, creeping thyme, chocolate chip ajuga, oregano





Red Creeping Thyme



# Decrease grass

- Extend garden beds (lasagne method)
- Reduce grass with organic grass burndown
- Create leaf litter areas
- Add more flowers!



Replace grass and slow stormwater with  
native sedge/carex, ferns, shade plants,  
shrubs & rocks





## **Carex laxiculmis 'Hobb'**

Bunny Blue

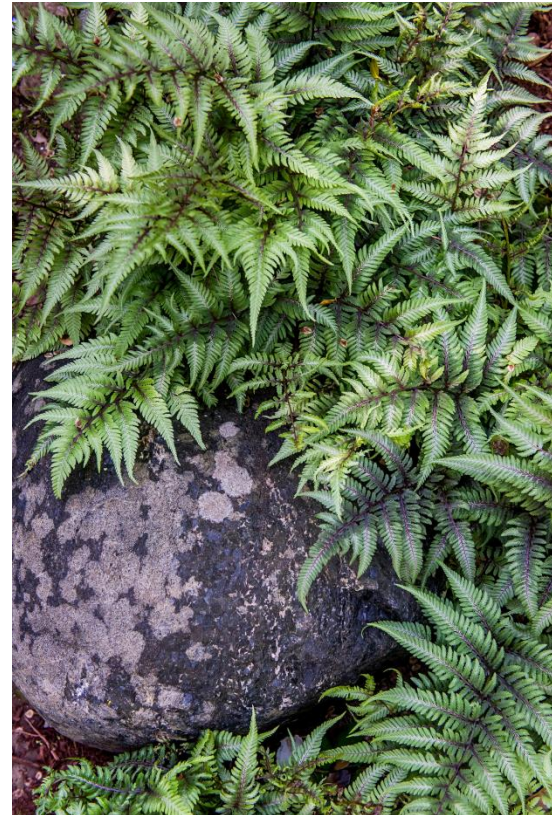
Sedge

Silver

Shady evergreen

6-12 inches

Deer resistant



### 3. Prepare container plants for winter

Move citrus trees, other plants that are not cold hardy into greenhouse



Move vegetable & propagation table into greenhouse



Plant courtyard at rear of greenhouse





# Native carnivorous plants can overwinter outdoors in containers







# Margi's focus: Vegetables

35 year old garden (about a 1/8 acre) on 20 acre property

## Overview

1. Options for Tucking in the Garden for the Fall
2. Fall Garden Basics
3. Planting a Fall Garden
4. Fall Cover Crops
5. No Till Gardening



# Options for Tucking in the Garden for the Fall

- Without doing anything, weeds will grow
- Covering garden space with 4" or less layer of mulch
- Planting a Fall Garden!
- Planting Fall Cover Crops

# Fall Gardening in the Piedmont

- Extended growing season
- Average date of 1st killing frost in Orange County is October 24th (October 21-31)
- Fall gardens require planning!
- August 1-15 - plant vegetables seeds with maturity of 60-80 days
- September 1 - quickly maturing plants (lettuce)
- Crop rotation - same space for same crop every 3rd year.
- Resource: <http://www.ces.ncsu.edu> “Growing a Fall Vegetable Garden”, by Erv Evans.

Extend growing season with row covers or plant in cold frame





# Preparing the site

- Remove summer residue and weeds (diseased plants should be burned or discarded in the trash - don't compost!)
- Clean tools, vegetable stakes & supports (denatured alcohol - 40%)
- Soil testing
- Till lightly - 6-8"; add layer of compost, aged manure; fertilizer, lime if needed. Re-till lightly
- Option of No-Till gardening

# Planting a Fall Garden

- DIRECT SEEDING : needs moisture!
- Plant seeds 1 1/2 to 2 times as deep as in the spring.
- Lettuce and spinach need < 85\* for germination
- Cover directly with row cover or lightly mulch to keep off birds.
- TRANSPLANTS: buy or start indoors
- Advantage of more space and air between plants.
- Need light shading for several days (row covers)
- WATER: 1" per week - more frequent for young seedlings

# Insect Disease

- More abundant in the Fall
- Check plants frequently
- Light row covers
- ? pesticides :
- BT (*Bacillus thuringiensis*) for cabbage loopers
- Water with few drops of dish soap for aphids

# Vegetable choices for a Fall Garden

- “Growing a Fall Vegetable Garden”  
[http:// www.ces.ncsu.edu](http://www.ces.ncsu.edu) - includes Fall Vegetable Planting Guide
- Central NC Planting Calendar for Annual Vegetables, Fruits, Herbs <https://content.ces.ncsu.edu>
- Personal experience: direct seed - carrots, beets, arugula, turnip greens, mustard greens. Transplant (start seeds indoors) - collards, kale, bok choy, chard.
- Garlic!

# Garlic

- Easy!!!
- Plant cloves (pointed side up!) mid October (Sept 15 to Nov 15)
- 6" apart, 3" deep
- Cover with 2-3" of leaf mulch





# Hardneck vs Softneck

- Hardneck: more cold hardy, larger cloves, produces scapes (remove), ? more flavorful.
- Softneck: stores well (9-12 months!), cloves are varied size, no scapes, great to braid!
- Harvest garlic ~ June 1st, before flowering.





# Cover Crop Basics

- Adds organic matter (grasses) and nitrogen fixing (legumes)
- Competes with weeds
- Creates own mulch cover for No-Till gardening
- Attracts beneficial insects (crimson clover)
- Have about 1/3 of garden in cover crop - rotate beds

# Cover Crops

**Summer Cover Crop**



**Winter Cover Crop**



# Cover Crops

- Summer: Sorghum Sudan grass + cowpeas
- “Winter Cover Crops for North Carolina”  
<https://growingsmallfarms.ces.ncsu.edu/>
- Winter Legumes: \*crimson clover, red clover, \*hairy vetch, Austrian winter peas, annual white sweet clover, yellow sweet clover, berseem clover, subterranean clover, white clover, fava bean.
- Winter non-legumes: cereal rye, \*annual rye grass (forms dense mat & does not winter kill), barley, mustard, oats, \*winter wheat, \*rape (repels root knot nematodes), forage radish.

# Planting Cover Crops

- Rake bed smooth
- Broadcast seed
- Tamp down (back side of leaf rake) lightly mulch or direct row cover (to keep off birds)
- Water!!! Every evening until germination, to keep seeds wet all night)
- Remove weeds while cover crop is small

# No-Till Gardening

- Benefits: Cover crops create own mulch - cut back in spring to plant tomato, pepper seedlings or squash seeds
- Chokes out weeds
- Builds up soil (organic matter and nitrogen fixing) - soil not compacted
- Disadvantages: may not kill Japanese Beetle grubs or root knot nematodes that might be brought to the surface by tilling
- Less work?

# Kiwi





# The wisdom of many

Top 3 fall gardening activities  
Share your favorite resources





# Fall Gardening themes from Master Gardeners

- Clean up
  - Leaves (keep and use them)
  - Lift tender plants, store over winter
- Plant, Divide, Transplant
  - Bulbs
  - Perennials
  - Vegetables
  - Mulch (4 inches or less– to encourage dormancy, avoid voles)

# Gardening Information

Orange Gardener website:

<https://theorangegardener.org/>

NC State Cooperative Extension site:

<https://horticulture.ces.ncsu.edu/publications/>

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

# Favorite Plant & Seed Sources

- North Carolina Botanical Gardens (native)
- Logan's Garden Shop, Raleigh
- Southern States
- Barnes Supply, Durham - hanging planters, pots, seeds
- [AmericanMeadows.com](http://AmericanMeadows.com) - wildflower seeds
- Country Farm & Home, Pittsboro, NC  
<https://chathamfarmssupply.com/>
- Passalong plants from friends
- Park Seeds – southern vegetable & flower seeds and small plants  
<https://parkseed.com/>
- Johnny's Seed site has some great articles for season extensions, varieties that are cold-hardy, and cover crops  
<https://www.johnnyseeds.com/>

# Vegetable Gardening

Vegetable Gardening in the Southeast by Ira Wallace

<https://content.ces.ncsu.edu/central-north-carolina-planting-calendar-for-annual-vegetables-fruits-and-herbs>

# Native Plants

Doug Tallamy, Bringing Nature Home

The Living Landscape by Rich Darke and Doug Tallamy

[www.nwf.org/NativePlantFinder/Search](http://www.nwf.org/NativePlantFinder/Search)

# If you are interested in learning about becoming a Master Gardener Volunteer

Email

[mart\\_bumgarner@ncsu.edu](mailto:mart_bumgarner@ncsu.edu)

Sign up to get on wait-list for next training

Join monthly educational meetings

