

Maintenance Matters!

Evening at Emory
April 14, 2009



PLANTING



Organic matter = Success

1 cu. ft. per gallon of plant container

ex: 2 one-gallon azaleas need a 2 cu. ft. bag of soil conditioner



Organic Matter

- Improves physical condition of the soil as it decomposes into humus
- Supplies nitrogen
- Improves water infiltration –
shrinks and swells

Green Thumb Tip



- Add 3 inches of organic matter on top of the area you intend to plant
- For increased drainage, add 1 inch of gritty sand
- Thoroughly mix to a depth of 10 inches





Tree Planting - Container



Tree Planting



- Loosen a wide area for root expansion
 - At least 6 ft. across
 - Adding organic matter is not as important as giving the roots room to easily grow.
- Dig hole in center no deeper than root ball
- Locate flare roots
 - Should be level with surrounding soil after planting





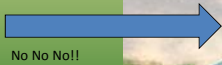
Tree Planting

- Check for girdling roots



Tree Planting

- Guy or stake (loosely) if necessary. Allow trunk to sway.



No No No!!



Tree Planting

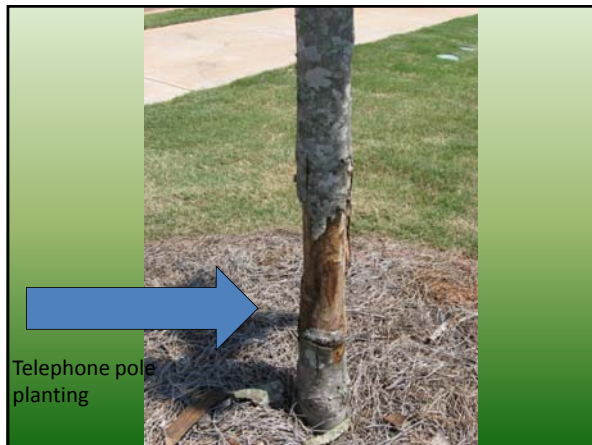
- Staking



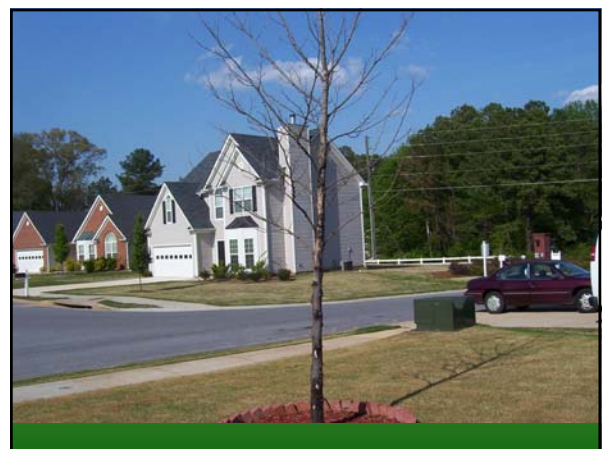
- Mulch out to the ends of the branches
 - Keeps soil cool
 - Keeps lawnmowers away
 - Keeps grass from growing competing



Bad news for tree roots



Telephone pole planting





Tree Planting

- Water thoroughly (10 gallons applied at base of trunk)
– www.outdoorwateruse.com
- Mulch

Mulching

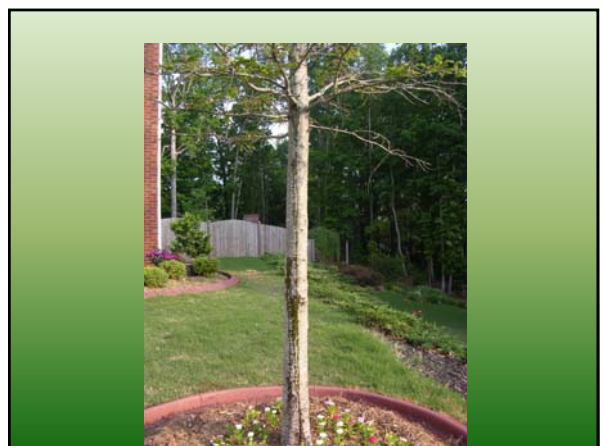
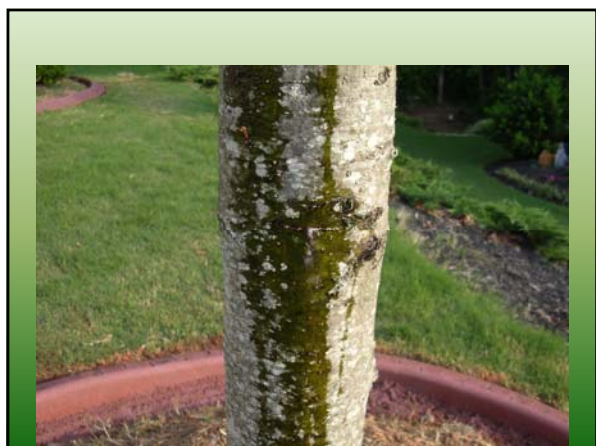


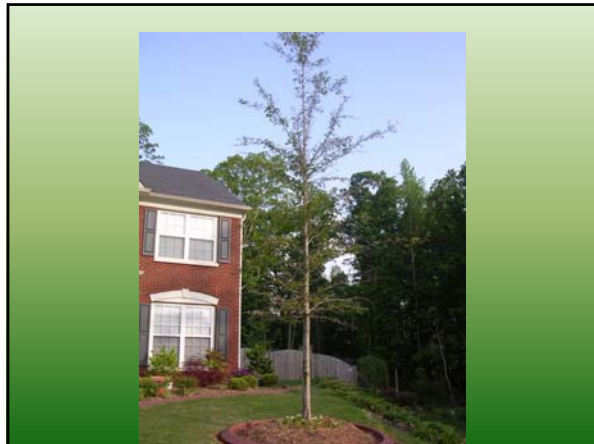
How Much Mulch?



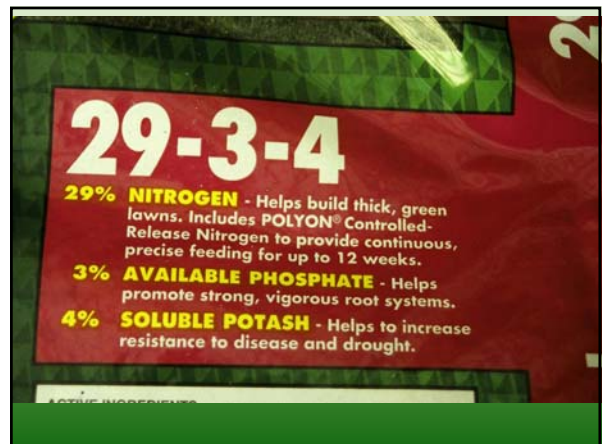
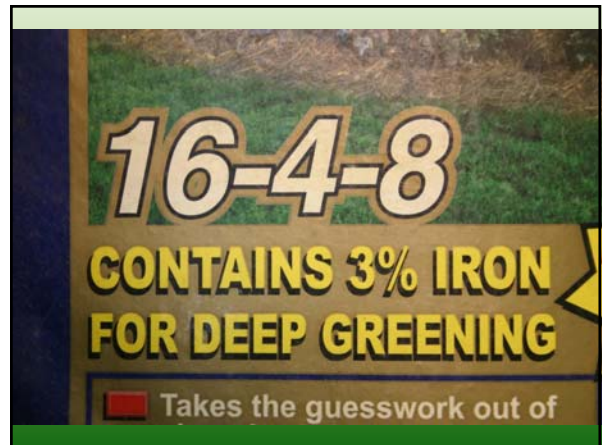
- Wood chips or bark: 2 inches deep
- Pine straw: 3 to 5 inches deep is sufficient
- 2 bales of pine straw covers approximately 100 sq. ft.
- 14 – 2 cubic feet bags of mulch covers 100 sq. ft.

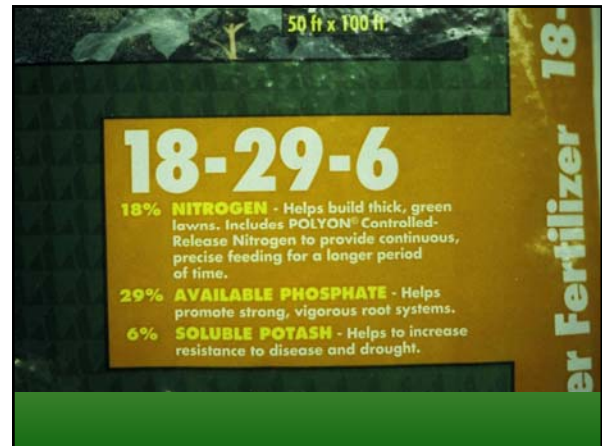


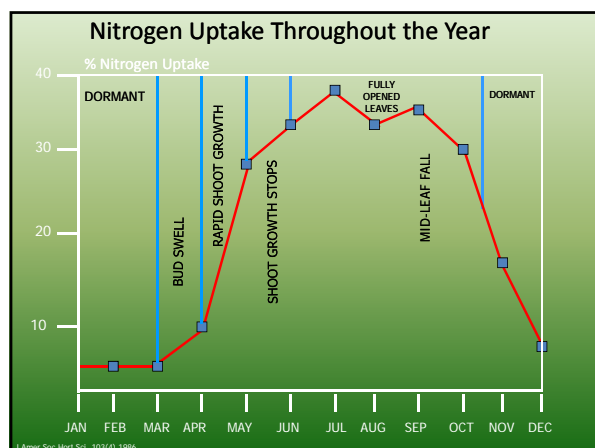




Lawn Fertilizing







Fertilization Frequency

Depends on:

- The type of fertilizer and its release duration
- The type of plants being fertilized
- The desired growth rate

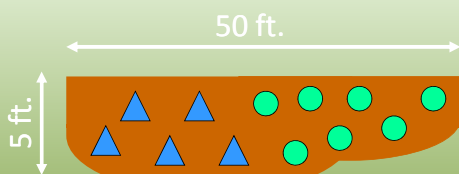
Fertilizing Established Plants How Much to Apply?

1 pound of nitrogen
per 1,000 square feet

16-4-8

$10/16 = 0.6$ lbs. per 100 sq. ft.

2 cups of dry, granular fertilizer = 1 lb.
Therefore, approximately 1 cup (1/2 lb.) of
16-4-8 will be needed per 100 sq. ft. of
bed area.



5 ft. x 50 ft. = 250 sq. ft.

16 - 4 - 8 = 0.6 lbs./100 sq. ft.

$$\frac{0.6}{100} = \frac{x}{250} \quad X = 1.5 \text{ lbs. (3 cups)}$$

WATERING



Rules of thumb for irrigation

- Shrubs: up to once a week - apply one gallon of water per foot of plant height
- Lawns: up to once a week - up to one inch per application
- Trees: up to once a week one inch of water under entire canopy



How do I know how long to irrigate?



Set out tuna cans randomly throughout your lawn



Turn on irrigation for 15 minutes, check to be sure irrigation is uniform, adjust heads if irrigation isn't uniform, repeat



Measure how much water was applied in 15 minutes and calculate how long it will take to apply the water you need

Adjust timers frequently according to changes in rainfall patterns



Target irrigation to plants that show signs of stress

- Gray/green Color
- Wilting
- Dying Branches

Use a hand-held hose with water breaker or a sprinkler can to target irrigation to plants that need water

For most efficient use of water, irrigate between 9 pm and 9 am to avoid evaporative loss of water.

Avoid light, frequent irrigation because it encourages shallow rooting and increases water demand of the plant.

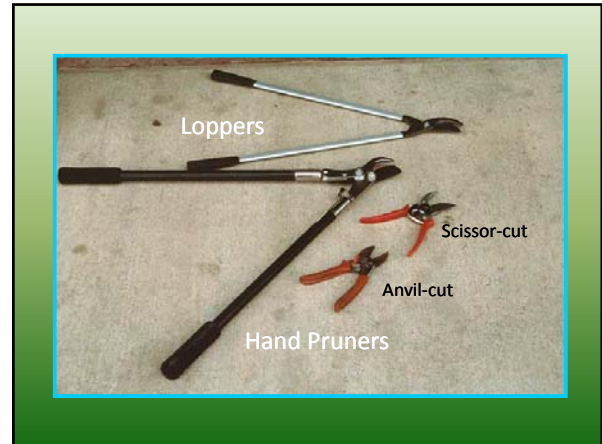


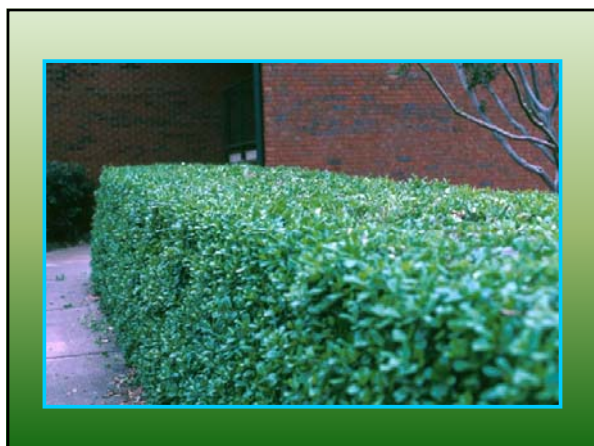
Use Timers When Allowed



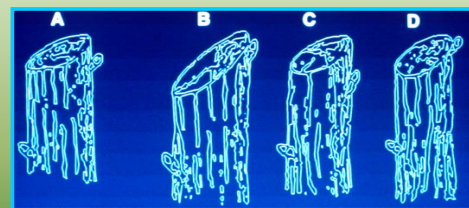
PRUNING







Making the Cut



Right

Wrong

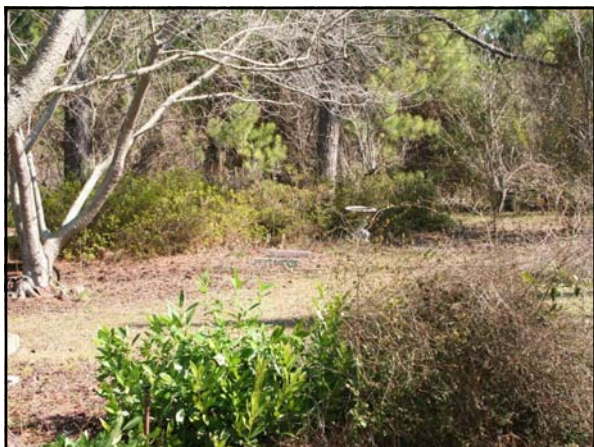
A: just above a bud,
slight angle

B: too wide an angle
C: too far from the bud
D: too close the bud

Renewal Pruning




Avoid doing renewal pruning in fall or early winter
Do renewal pruning 4 to 6 weeks before spring
growth begins







Renewal Pruning



Year 1:
Remove half the growth
Thinning and heading cuts



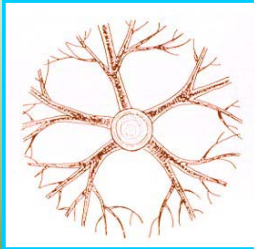

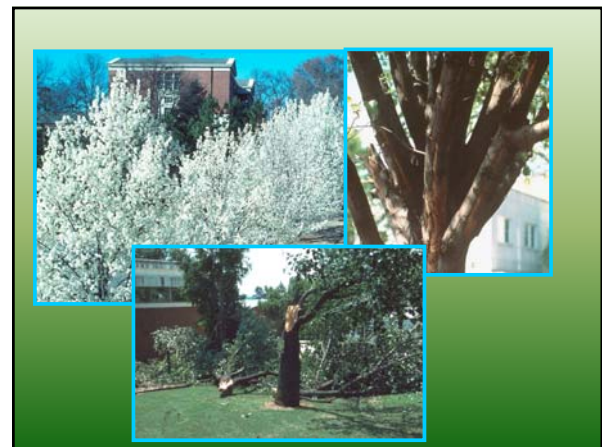
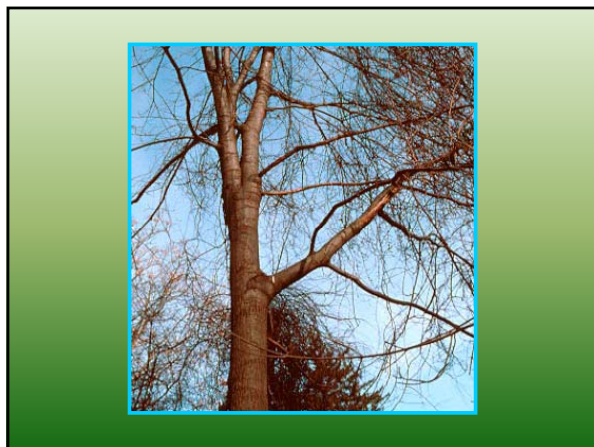
Year 2:
Remove other half of old wood

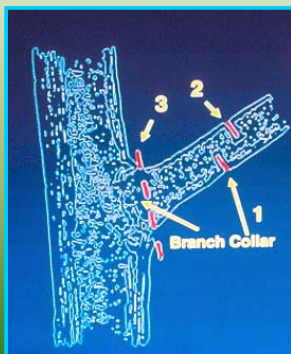


Shrub is now smaller

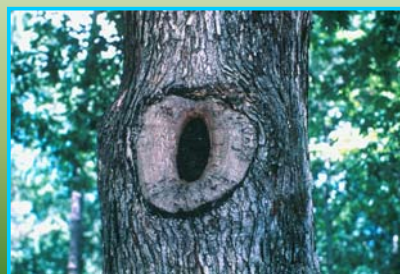
Pruning Conifers





Remove a large branch in 3 steps



Spring vs. Summer Flowering

Prune spring-flowering plants after they bloom

Prune summer- flowering plants before new growth begins

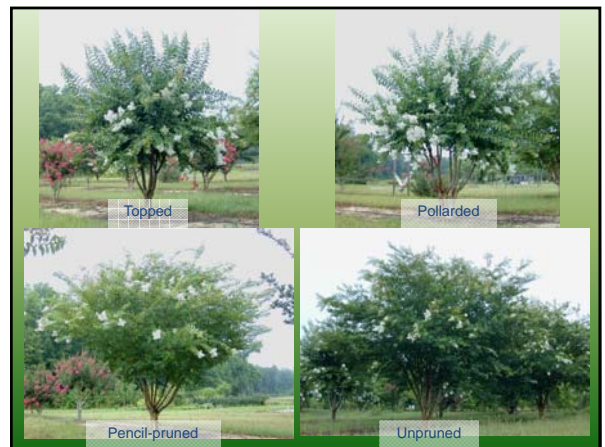
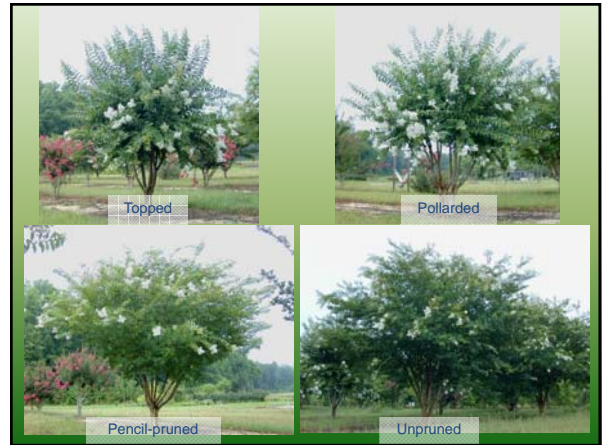
Spring Flowering Plants

- Azalea
- Forsythia
- Oakleaf Hydrangea
- Flowering Cherry
- Flowering Quince
- Dogwood
- Redbud
- Rhododendron
- Bradford Pear
- Wisteria

Summer Flowering Plants

- Crape myrtle
- Glossy Abelia
- Goldenrain Tree
- Rose-of-Sharon (Althea)
- Nandina
- Shrub Roses
- Sweetshrub





What's the "right" way to prune crapemyrtle?

- To avoid constant, severe pruning, plant the right-sized cultivar for the plant's location in the landscape
- To minimize plant structural damage and risk of disease, leave plants unpruned
- Otherwise prune according to your preferences for winter appearance and summer appearance



Green Thumb Tips

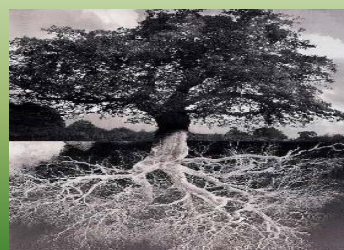
- Right plant in right location
- Pruning is local in effect
- Thinning cuts are best
- Do not prune in the fall
- Use three cut method when pruning trees
- Wound dressings are not necessary
- Prune spring flowering plants after bloom
- Prune trees early in life to set up growth
- Keep pruning tools sharp and clean



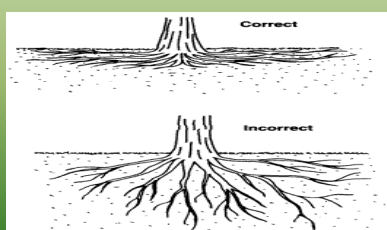
TREE CARE



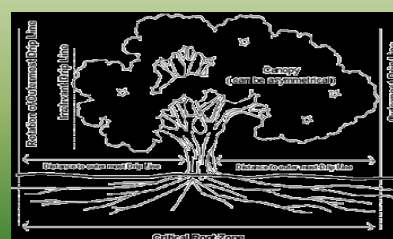
Is this what tree roots look like?



The Real Story.....



How far do roots extend?



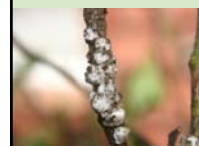


Before Construction Begins

- Meet with Contractor
 - Determine which trees are possible to save
 - Not every tree can be saved
 - Determine **parking** and supply routes
 - Concrete wash out area



INSECT CONTROL





Fire Ants

Red Imported Fire Ant

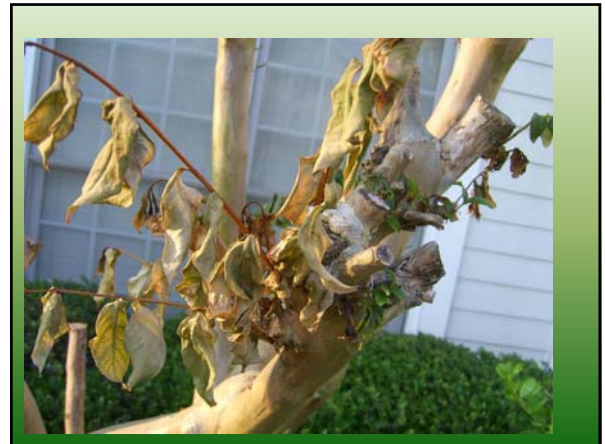


worker




mound








Lacebug




Azalea
Lantana
Pyracantha




White Grubs

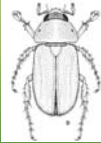
White Grubs – Larvae of Certain Beetles




green June beetle



Japanese beetle



masked chafer



Oriental beetle

Lawn Insects



Ground bee – harmless, no control necessary



#1 – Broadcast treatment

Wait 24 hours



#2 – Mound treatment



Bagworms on Evergreens



Sucking Insects that are Associated with Sooty Mold



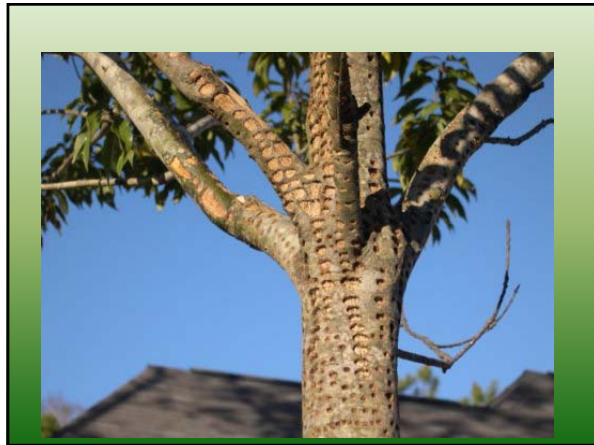
Aphids



Azalea lace bug



Scale insects



Diseases






Incorrect watering is the most common cause of lawn disease.

Grasses are amazingly tolerant of dry soil – water only when grass looks wilted.

Water before 10:00 a.m.

Water deeply (1 inch) once per week if no rain.



LARGE PATCH ON ZOYSIA

- relatively cool and wet conditions
- early spring and late fall
- commonly associated with turf in shaded or wet areas
- 2' to 20' irregular patches
- In spring patch symptoms - light brown sunken
- attacks the leaf sheaths near the thatch layer not roots or stolons
- Controlling
 - avoid excess moisture
 - correct poorly drained areas
 - avoid thatch
 - fungicides only prevent

Fire Blight

- Affects apple, pear, crabapple, pyracantha, quince, blackberry and raspberry.
- Over winters in cankers
- Spread during bloom by insects



Phytophthora root rot on Azalea and Rhododendron

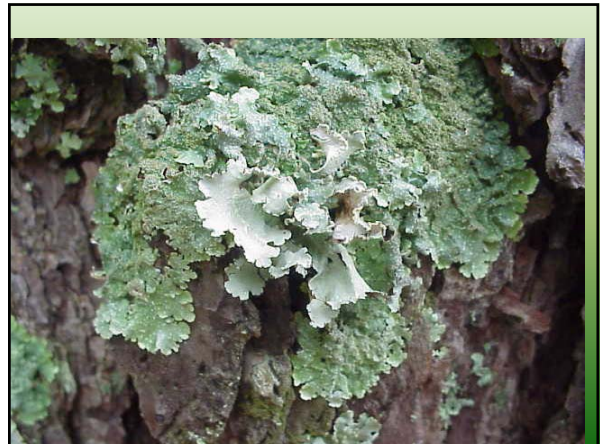
High soil moisture and soil temperatures of 80°F and above



Azalea/Camellia leaf gall

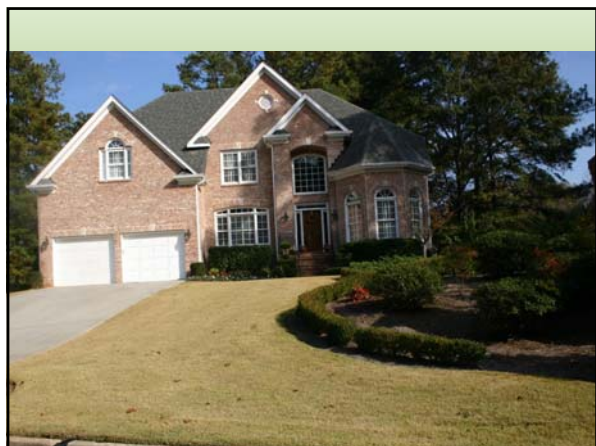


Spot Anthracnose on Dogwood



WEEDS





Two Kinds of Weed Leaves

Broadleaf

dandelion, clover, chickweed, etc

Grassy

crabgrass, goosegrass,
dallisgrass, etc



Two Kinds of Weed Behavior

Annuals

crabgrass, goosegrass, clover,
chickweed, etc

Perennials

dandelion, dallisgrass, onion, etc

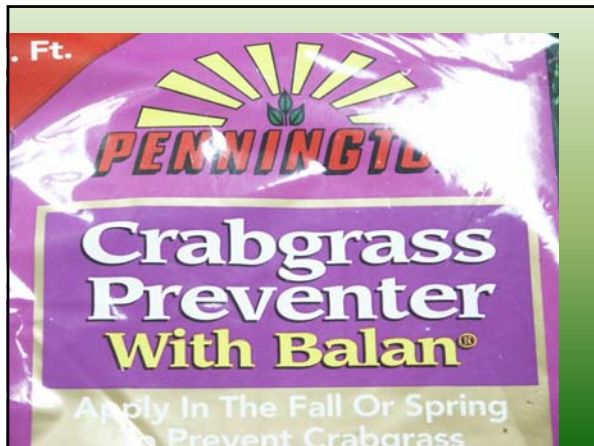
Two Strategies for Control

Prevent the seeds from germinating

crabgrass, goosegrass, clover,
chickweed, etc

Kill the existing weed

dandelion, dallisgrass, onion, etc




WIPE-OUT® Broadleaf Weed Killer

Not For Use on Floratam St. Augustine Grass. Controls Weeds in St. Augustine, Bermuda, Fescue, Bluegrass, and Other Turf Grasses.

Kills: Bindweed, Chickweed, Clover, Creeping Charlie, Dandelions, Henbit, Oxalis, Spurge, and Other Weeds.

ACTIVE INGREDIENT:

*Dimethylamine salt of 2-(2-methyl-4-chlorophenoxy) propionic acid.....	6.89%
**Dimethylamine salt of 2,4-dichlorophenoxyacetic acid.....	1.98%
***Dimethylamine salt of dicamba (3,6-dichloro-o-anisic acid).....	0.84%
INERT INGREDIENTS:	90.29%



All-in-One Weed Killer for Lawns

READY-TO-USE

- ▶ **Kills lawn weeds plus crabgrass**
- ▶ **Kills dandelion, clover, nutgrass & other listed weeds**
- ▶ **Won't harm lawns**

Active Ingredients:

Monosodium acid methanearsonate.....	0.36%	2,4-D, dimethylamine salt.....	0.12%
Mecoprop-g, dimethylamine salt.....	0.06%	Dicamba, dimethylamine salt.....	0.02%

Other Ingredients:..... 99.44%

Total 100.00%

KEEP OUT OF REACH OF CHILDREN



Chickweed Clover & Oxalis Killer

One pint covers 5000 sq. ft.

ACTIVE INGREDIENTS:

Monosodium acid methanearsonate.....	48.3%
INERT INGREDIENTS.....	51.7%
Total 100.0%	

WARNING: See Back of Product for Children.



MSMA Crabgrass Killer

With Spreader Sticker

Effective for Controlling Crabgrass, Dallisgrass, Sandbur and Other Grasses Listed on Back.

ACTIVE INGREDIENT:

Monosodium Acid Methanearsonate.....	48.3%
INERT INGREDIENTS.....	51.7%
Total 100.0%	



IMAGE Herbicide Consumer Concentrate

KILLS NUTSEDGE

KILLS TOUGH WEEDS

Kills Dollarweed, Wild Onion, Sandbur, Annual Bluegrass

Treats 6,000 Square Feet

A Selective herbicide for use in established Bermudagrass, Centipedegrass, St. Augustinegrass, Zoysiagrass and selected landscape ornamentals

ACTIVE INGREDIENT: Ammonium salt of imazapyr (2-[4,5-dihydro-4-methyl-4H-imidazo[5,1-b]pyridin-2-yl]-5-oxo-1H-imidazole-3-carboxylic acid)..... 1.7%

OTHER INGREDIENTS:..... 98.3%

TOTAL:..... 100.0%

***Equivalent to 2.14% 2-[4,5-dihydro-4-methyl-4H-imidazo[5,1-b]pyridin-2-yl]-5-oxo-1H-imidazole-3-carboxylic acid (1 pint contains 0.0375 lbs. of active ingredient as the free acid)**

KEEP OUT OF REACH OF CHILDREN CAUTION!

PRECAUTION AL USUARIO: Si usted no lee las reglas, no use este producto hasta que la etiqueta le haya sido explicada completamente.

SEE BACK FOR ADDITIONAL



IMAGE for ST. AUGUSTINEGRASS and Centipedegrass

with ATRAZINE

KILLS TOUGH WEEDS

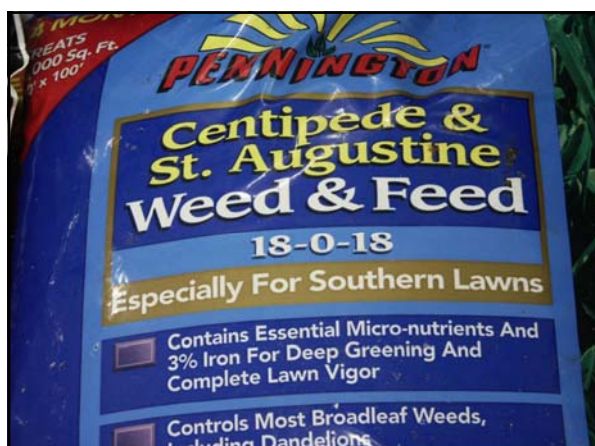
Kills Dollarweed, Sandbur and other listed weeds.

KEEP OUT OF REACH OF CHILDREN CAUTION

NET CONTENTS 32 FL. OZ. (947ml.)





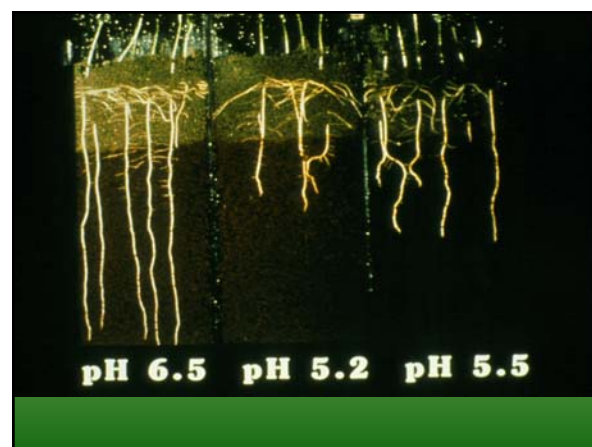


General Lawn Care

- Liming
- Mowing
- Aeration
- Dethatching
- Insects



Lawn Liming



Soil Testing

For Home Lawns,
Gardens and Wildlife
Food Plots



Lawn Mowing



Lawn Mowing

Mowing height (in inches)

Tall Fescue	2-3
Common bermudagrass	1-2
Hybrid bermudagrass	0.5-1.5
Zoysiagrass	1-1.5
Centipedegrass	1-1.5
St. Augustinegrass	2-3

Centipedegrass and zoysiagrass are particularly sensitive to being mown too high or too low.



Aerator – Core (or plug) type



Go three times across the lawn

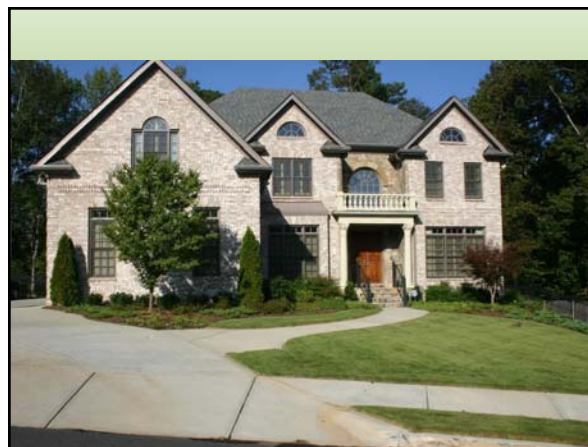


Vertical mower (dethatcher)

www.conservewatergeorgia.net

www.watersmart.net

www.georgiadrought.org



- AM 750 WSB “The Lawn and Garden Show”
– Saturdays 6:00 a.m. – 10:00 a.m.
- Atlanta Journal and Constitution “Weekend Gardener”
Thursday in the Living section
- GPTV “Gardening in Georgia”
Wed. at 7:00 p.m., Sat. 12:30 p.m. and 6:30 p.m.
- The Georgia Gardener website
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- “Georgia Gardener” email newsletter (every two weeks)
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