

# Tree Problems

## Unit 10



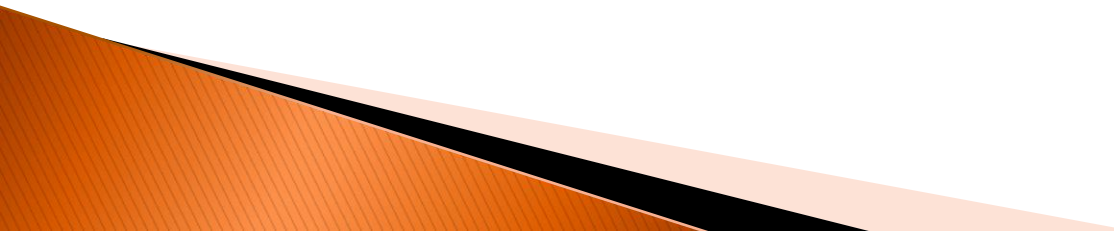
## What's Wrong With My Tree?

-Tree Stewards provide education for the community

1. Neighbor
2. Church Group
3. Local School Teacher
4. Citizen in Park
5. City Counsel



# Evaluating Trees

- Be Objective
  - Look for all Abnormalities
  - Observe Surrounding Area
  - Talk to Landowner
  - Take your Time
  - Practice, Practice,  
Practice.....!
- 

# Identify!



Horsechestnut



Douglas fir



Flowering dogwood



Cabbage palmetto



Ginkgo



Eastern redcedar



Paper birch



Tamarack



Southern magnolia



White ash



American holly



Rocky Mountain juniper



American sycamore



Redwood



Cedar of Lebanon



Eastern white pine



Black cherry



Black walnut



Tulip tree



Red spruce



Eastern cottonwood



White oak



Shagbark hickory



American elm



Sugar maple

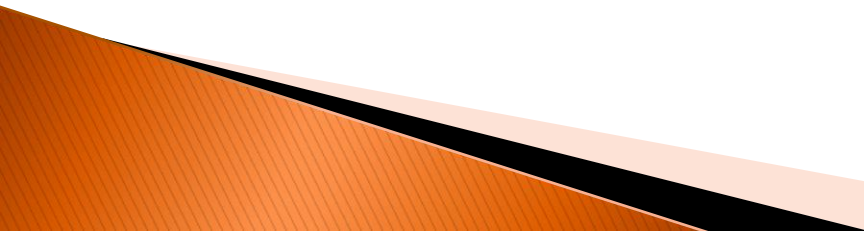


Think

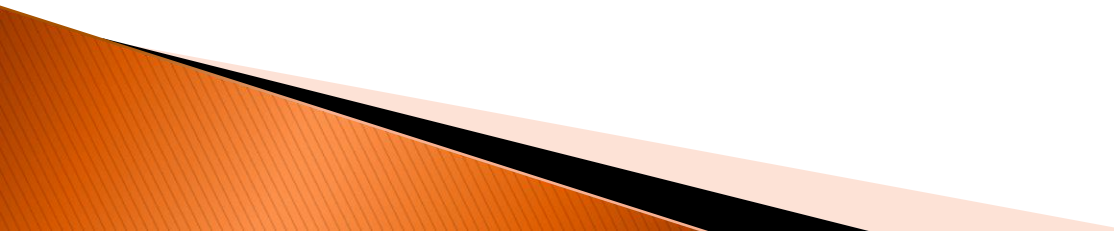
# Signs and Symptoms



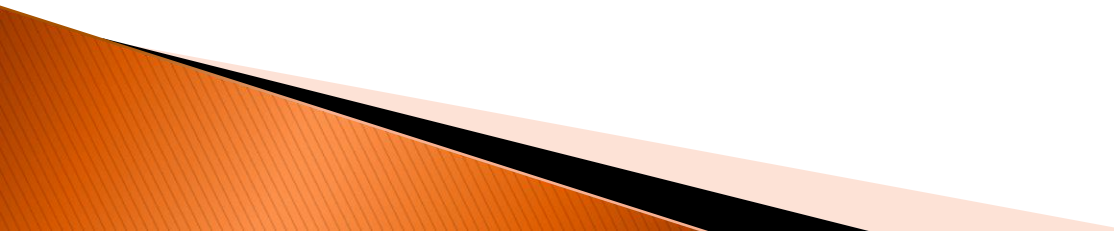
# Tree Problems

- ▶ Disorder – When a tree has an ailment or disruption in normal health and behavior.
  - ▶ Signs – actual evidence of the damaging agent – mushrooms/insects
  - ▶ Symptoms – Change in plant's normal appearance – reduction in growth/dieback
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# Abiotic – Nonliving Disorders

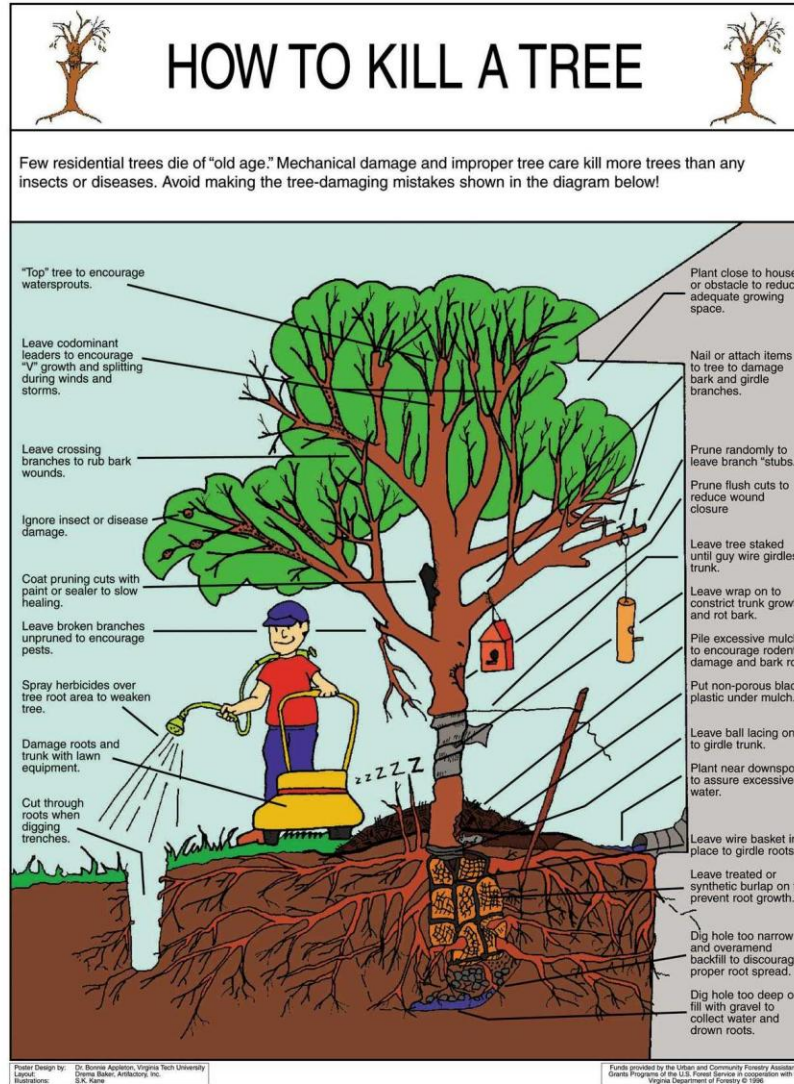
- Soil compaction
  - Soil Moisture
  - Mechanical damage
  - Temperature Extremes
  - Chemicals
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# Biotic – Living Organisms

- Fungi
  - Bacteria
  - Insects
  - Vertebrates
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# Top to Bottom



Poster Design by: Dr. Bonnie Applegate, Virginia Tech University  
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# Crown

- Look from enough angles and distances
- Use binoculars
  - Dieback – death in a specific portion of the tree.
  - Defoliation – premature loss of foliage.
  - Flagging – some leaves on branches begin to wilt.
  - Decline – chronic disorder.
  - Chlorosis – yellowing/lack of chlorophyll.
  - Wilting – drooping leaves before dying.
  - Leaf Necrosis – portions of the leaf are dead.

# Trunk and Stems

- ▶ Examine Bark
- ▶ Magnifying Glass
  - Cankers – localized dead areas in the wood.
  - Watersprouts – emerge from dormant buds.
  - Suckers – grow from tree's roots.

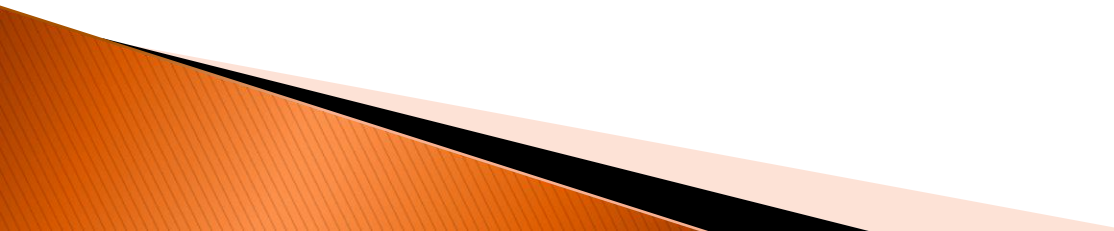
# Roots

- ▶ Most important part of tree
- ▶ Most urban tree problems
- ▶ Greatest challenge
  - Above-ground signs/symptoms can indicate root disorder.
  - Abiotic Activities – construction damage.
  - Improper Planting – younger trees.
  - Root Disorders – pH, texture, moisture and compaction.

# Is a Tree SAFE?

- ▶ A tree is unsafe when it has a defect or condition that threatens a TARGET, such as people, places or property.
- ▶ 3 Rules
  - Inspection
  - Treating problems quickly
  - Removing when risks outweigh value

# Symptoms of Unsafe Tree

- ▶ Defective Roots
  - ▶ Multiple Trunks
  - ▶ Weak Branch Attachment
  - ▶ Cavities and Decay
  - ▶ Cracks
  - ▶ Hangers and Suspended Branches
  - ▶ Dead Wood
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# Tools

- ▶ Trowel – investigate roots and pry away loose bark.
- ▶ Binoculars – view crown
- ▶ Rubber Mallet – sound trees for cavities
- ▶ Yardstick – probe cavities or cracks
- ▶ Cordless Drill
- ▶ Resistograph
- ▶ <http://www.youtube.com/watch?v=4uwygaZ-w3o>

# Collecting Samples

- ▶ Tissue samples help identify plant disorders cause by:
  - Disease
  - Insects
  - Nutrition
  - Cultural problems
  - Herbicide problems



# When Collecting

- ▶ Obtain as many tree features as possible
  - Preserve in plastic bag
  - Keep cool
  - Mail in padded envelope
  - Package as soon as collected
  - No wet paper towels
  - Fruits in dry newspaper
  - Insects in plastic/glass vials
  - Include insect plant damage

# Hazard Trees

- ▶ Be alert for:
  - Power lines
  - Weak structures
  - Hangers
  - Cracks or splits
  - Lodged tree
  - Leaner
  - Root damage
  - Topping
  - Dieback
  - Signs of decay

# Solutions for Hazard Trees

- Move potential “targets”
- Prune and keep healthy
- Cable or brace
- Remove
- **Call a Certified Arborist!**