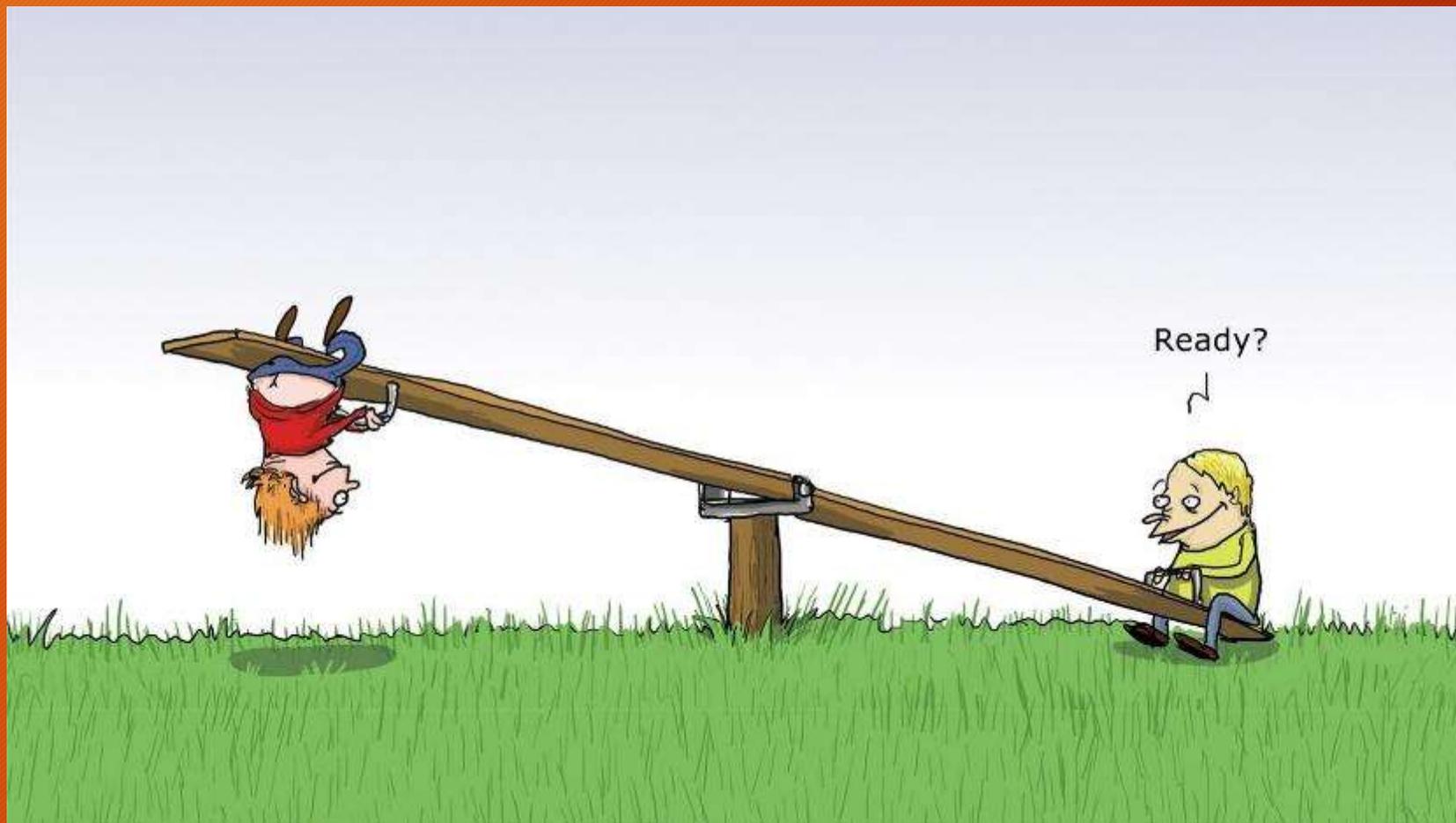


Summer & Winter Tree Care

Presented by: Jason Alfaro, CPRP, CPSI
ISA Certified Arborist TX - 3936A



Are you sure you're ready?



Topics of discussion

- ✓ Sun related issues and prevention
- ✓ Pruning trees properly
- ✓ Watering techniques and amounts
- ✓ Tree selection and placement
- ✓ Proper tree planting
- ✓ Common insects and pests

Sun related issues and prevention



Sun related issues and prevention

Sun Scald - Refers to a process in which living cells just inside the outer bark are damaged by day to night temperature fluctuations, mainly during the winter months.

Sunburn - This can occur during the hot summer days when the bark is exposed to continuous sunlight, as well as being close to pavement, sidewalks, or any other type of reflective, or heat absorbing source.



Sun Scald damage to a Red Oak tree. Many young and newly planted trees are more susceptible to sun scalding.





Sun Scald/Burn damage on a lateral branch from excessive limb removal.

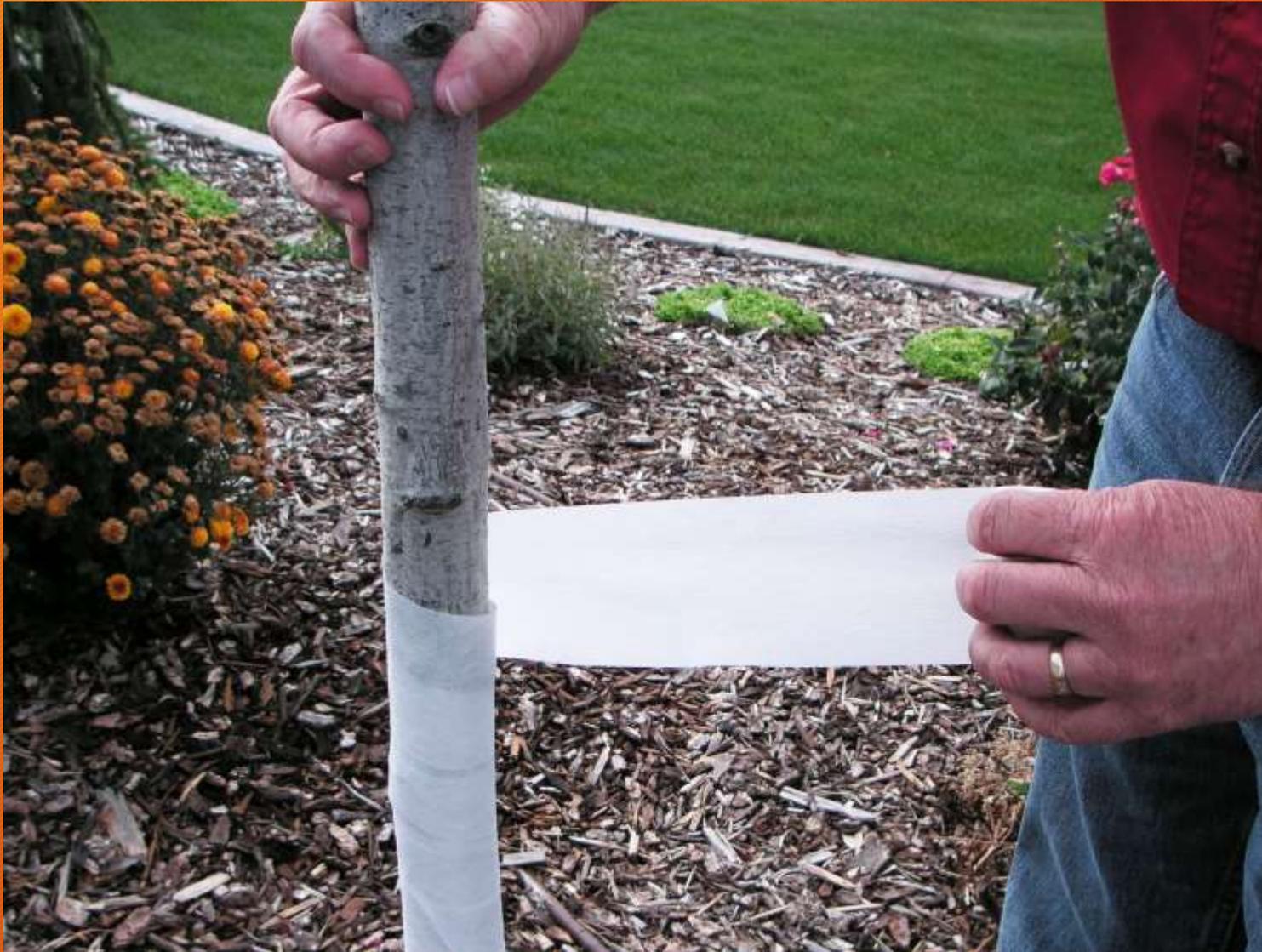
A look inside the damaged limb reveals the amount of decay and damage that was in the branch.



Sun related issues and prevention

Prevention of Sun Scald/Sunburn:

- ✓ The use of light colored tree wraps can help prevent sunscald and sunburn.
- ✓ If at all possible, avoid planting trees in the heat of summer.
- ✓ Mulch around the base of the trees with coarse organic material to moderate the temperature of the soil and help retain soil moisture.



Tree pruning



**" If you can't stand the sight of sap . . go inside . .
this isn't going to be pretty. "**

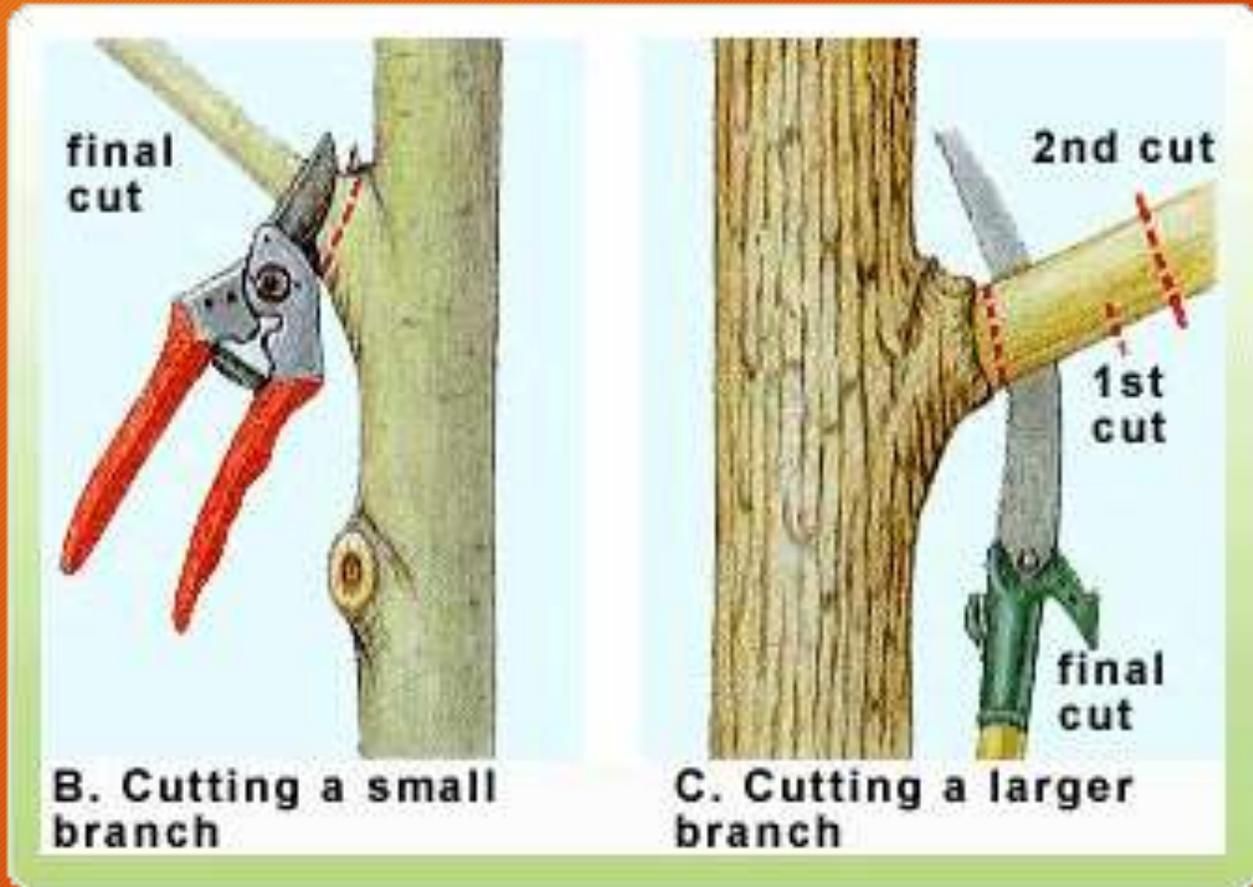
Pruning trees during the year

- ✓ Pruning can be done at any time of the year. Recommended times to prune vary with different plants and types of trees. Pruning at the wrong time of the year does not kill plants, but continuous improper pruning results in damage or weakened plants.
- ✓ In general, the best time to prune most plants is during late winter or early spring before growth begins.
- ✓ If pruning in the summer is needed, it is advisable to limit the amount of pruning. Prune only damaged, dead, hanging, or any safety issue branches from the tree.

Proper pruning cuts and placement of saw



Proper pruning cuts and placement of saw



Improper cuts vs. Proper cuts

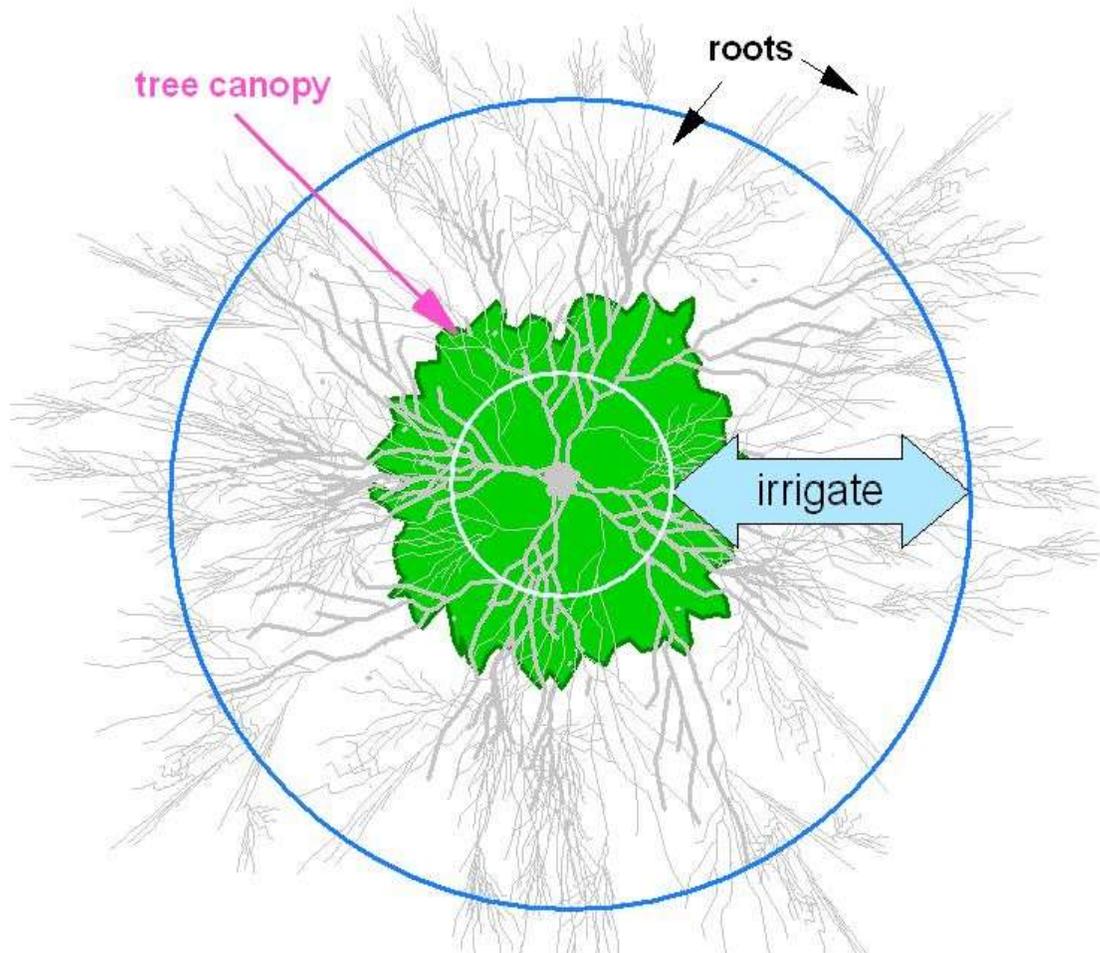




Watering techniques and amounts



Watering techniques and amounts



- ✓ Water beyond the tree canopy
- ✓ Deep infrequent watering
- ✓ Mimic mother-nature as much as possible
- ✓ Screwdriver test
- ✓ Difficult to distinguish between underwatered and overwatered trees
- ✓ 10 gallons per 1" diameter

Watering techniques and amounts

- ✓ Newly planted trees need more attention
- ✓ After a tree is established supplemental watering should take place outside the drip line
- ✓ Established trees need a deep irregular soaking
- ✓ Soil should be moist at a depth of 8-10"
- ✓ Mulching is a key element in retaining moisture and insulating the roots



Supplemental watering techniques



Tree selection and placement



Tree selection and placement

Large trees on the east and west sides provide shade that can lower cooling costs by 10 percent.

Small evergreens are useful as privacy screens. All trees serve as habitat for songbirds and wildlife.



Plant shrubs or small trees, such as dwarf fruit trees or small flowering trees, under power lines to avoid conflicts.

Large street trees improve curb appeal, increasing real estate values by 5 percent to 20 percent, as well as providing shade and cooling paved surfaces.

In a year, one tree...



...cools like **10 air conditioners** running continually.



...absorbs **750 gallons** of stormwater.



...filters **60 pounds** of pollutants from the air.

- Trees absorb CO2 and provide us with oxygen.
- Trees provide us with food.
- Trees can absorb noise and help to lower noise pollution.
- Trees provide us with building material.
- Trees provide us with shade and act as windbreaks.
- Trees help prevent soil erosion.
- Trees are habitats for many animals.
- Trees filter harmful pollutants from the air, soil and water.
- The plants that grow in forests can have important medicinal value.

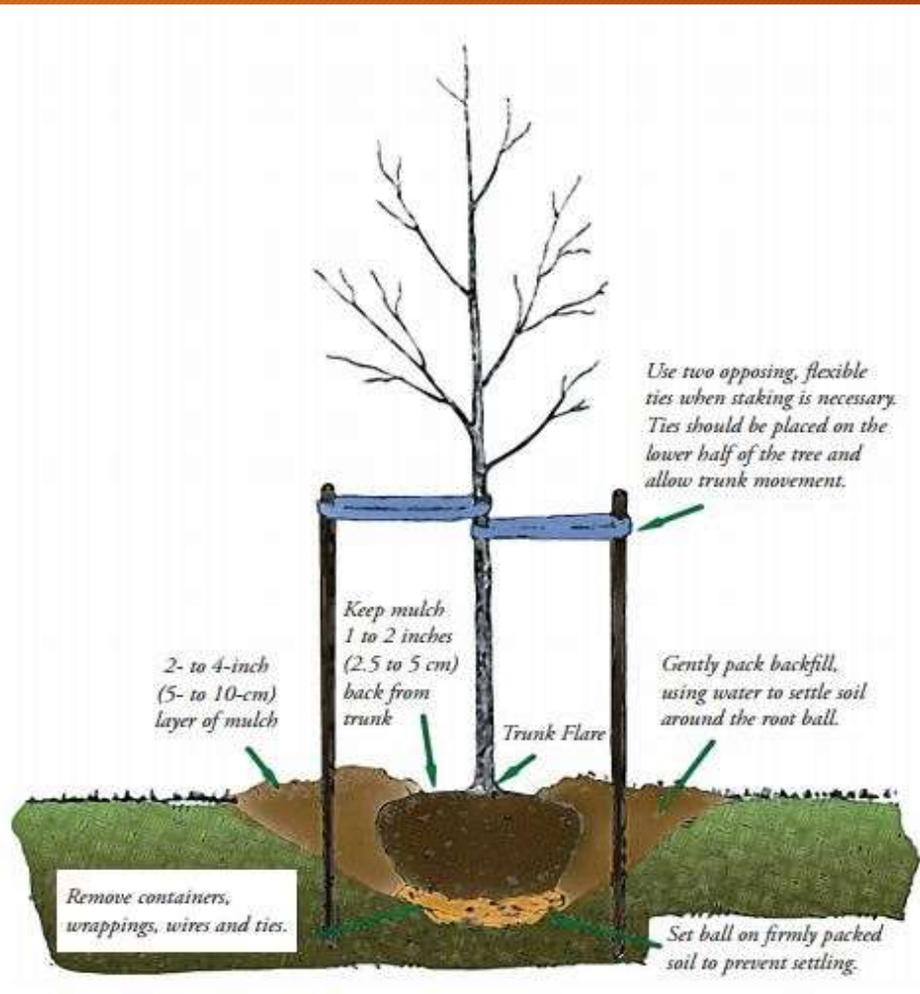
It has been found that neighbourhoods with trees have lower crime rates

Tree selection and placement

- ✓ Hardiness zone - 8b to 9a
- ✓ Height of the tree mature
- ✓ Canopy spread
- ✓ Coniferous or Deciduous
- ✓ Form and shape of the tree
- ✓ Growth rate
- ✓ Requirements - Sun, soil, and moisture
- ✓ Fruit bearing or non-fruit bearing

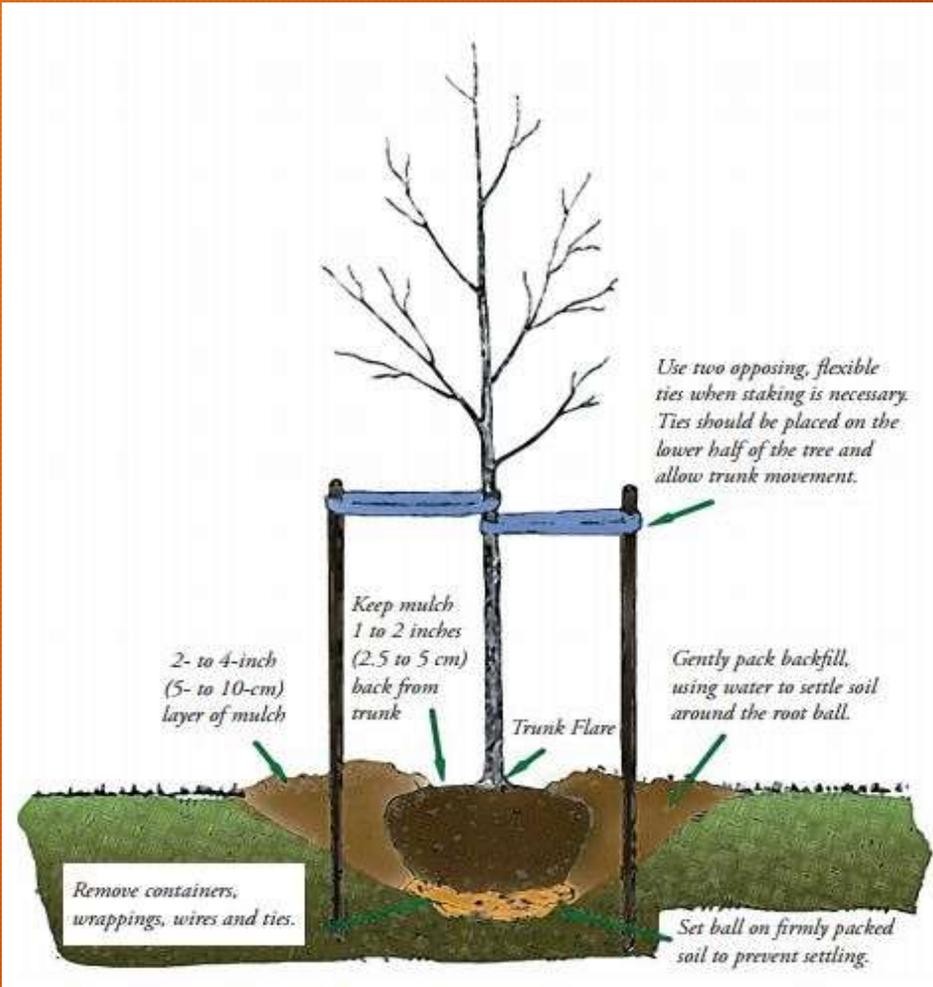


Proper tree planting



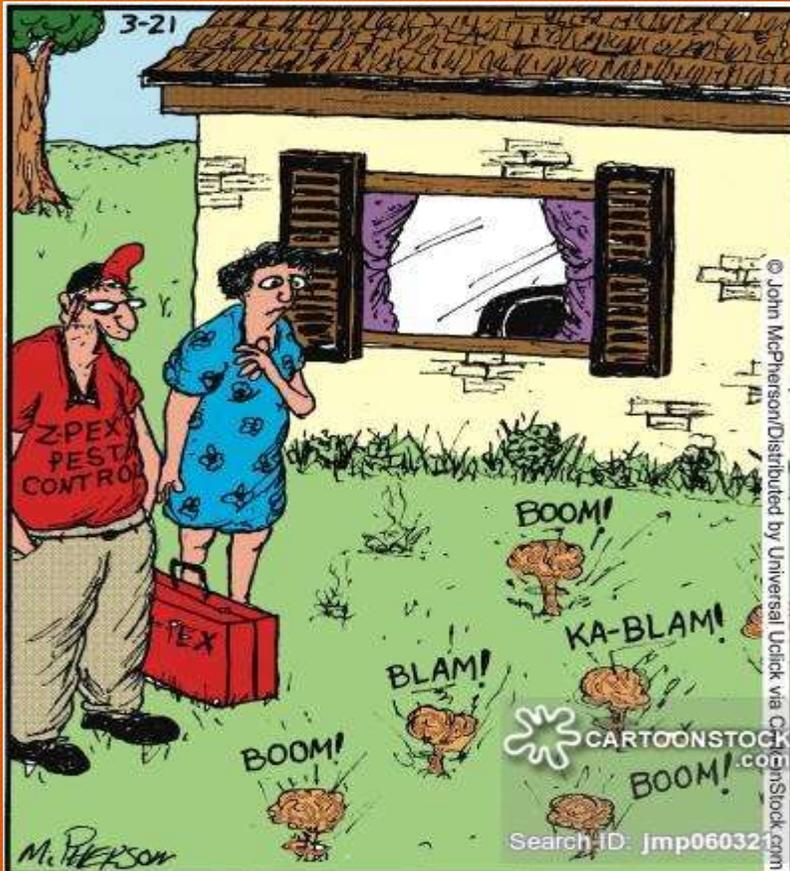
- ✓ The most ideal time to plant a tree in Texas is during the Fall
- ✓ Identify and remove any dirt from around the trunk flare of the tree
- ✓ Dig a shallow hole and double the width of the root ball
- ✓ Remove any burlap or containers from the root ball and “tickle” the roots
- ✓ The tree should sit 1-2” above the ground level when ready to backfill

Proper tree planting



- ✓ Make sure the tree is straight prior to backfilling
- ✓ Backfill with the same dirt that was excavated and lightly pack the dirt
- ✓ Stake the tree - ONLY IF NEEDED
- ✓ Mulch the tree
- ✓ Water the tree very well after the initial planting
- ✓ Any follow up as needed

Pests



"These new nuclear pesticides are four times more effective than chemicals, plus they're darned fun to watch!"



"I'M JUST SAYIN', WITH THIS CUTE LITTLE FACE AND MY BIG FLUFFY TAIL, I NEVER REALLY THOUGHT OF MYSELF AS VERMIN!"



A few common pests

Some common insects/pests include:

- ✓ Suckers
- ✓ Chewers
- ✓ Gall Makers
- ✓ Borers

A few common pests and diseases

Suckers

- ✓ Small insects on leaves or twigs
- ✓ Honeydew under the tree
- ✓ Sooty Mold under the tree

Aphids

- ✓ Small and somewhat pear shaped
- ✓ Some cause leaf curling
- ✓ Overall, not very damaging to the tree
- ✓ Lady bugs are a natural predator



A few common pests and diseases

Chewers

- ✓ Will see missing leaf tissue
- ✓ Will skeletonize the leaves
- ✓ Majority of the time you will see the chewer

Bag Worms and Tent Caterpillars

- ✓ Caterpillars that live in “bags” that are made of leaves and webbing
- ✓ Large populations of bag worms can be detrimental to the host tree
- ✓ Can cause tip dieback on the tree



A few common pests and diseases

Gall Makers

- ✓ Abnormal outgrowths of plant tissues
- ✓ Mostly unsightly but not damaging
- ✓ Infested leaves which can be twisted or curled, are usually able to carry out photosynthesis near normal levels

Gall Wasps

- ✓ The single largest group of gall-making insects
- ✓ Produce a wide range of galls (woody, rounded, wooly, or mossy)



A few common pests and diseases

Borers

- ✓ Visible small holes in the trunk
- ✓ Saw dust near holes or base of tree
- ✓ Branch dieback
- ✓ Tree decline and death

Types of Borers

- ✓ Cottonwood Borer - can cause young trees to break at the root crown
- ✓ Redheaded Ash Borer - Attach dying or dead trees
- ✓ Emerald Ash Borer - Responsible for the death of hundreds of millions of Ash trees in North America

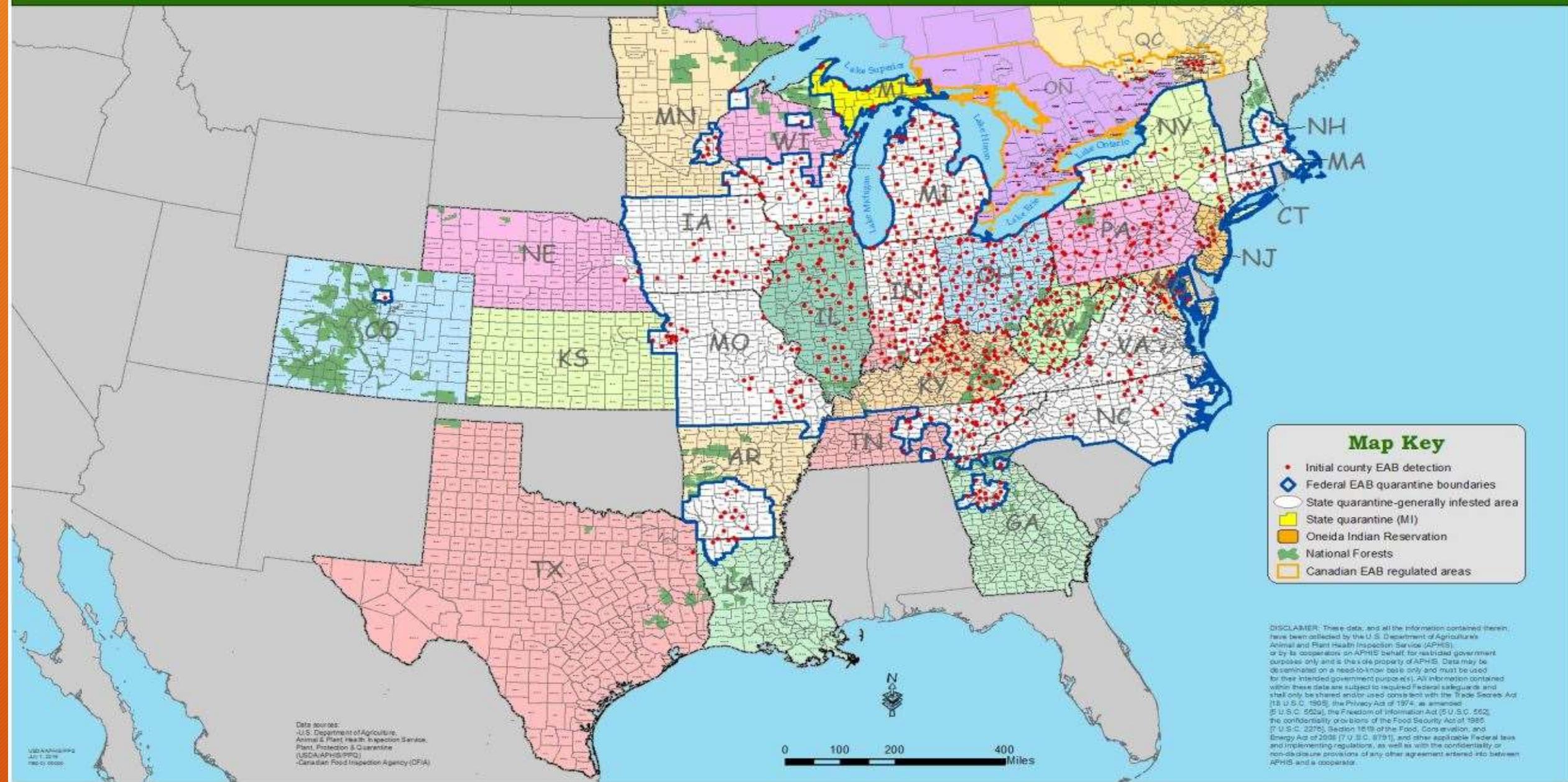




Cooperative Emerald Ash Borer Project

Initial county EAB detections in North America

July 1, 2016



Map Key

- Initial county EAB detection
- ◊ Federal EAB quarantine boundaries
- State quarantine—generally infested area
- State quarantine (MI)
- Oneida Indian Reservation
- National Forests
- Canadian EAB regulated areas

DISCLAIMER: These data, and all the information contained therein, have been collected by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) or by its cooperators on APHIS' behalf, for no intended government purpose only and is the property of APHIS. Data may be disseminated on a need-to-know basis only and must be used for their intended government purpose(s). All information contained within these data are subject to required Federal safeguards and shall only be shared and/or used consistent with the Trade Secrets Act (18 U.S.C. 1905), the Privacy Act of 1974, as amended (5 U.S.C. 552a), the Freedom of Information Act (5 U.S.C. 552), the confidentiality provisions of the Food Security Act of 1985 (7 U.S.C. 2275), Section 1619 of the Food, Conservation, and Energy Act of 2008 (7 U.S.C. 9791), and other applicable Federal laws and implementing regulations, as well as with the confidentiality or non-disclosure provisions of any other agreement entered into between APHIS and a cooperator.

Data sources:
U.S. Department of Agriculture,
Animal & Plant Health Inspection Service,
Plant, Protection & Quarantine
(USDA/APHIS/PPQ)
-Canadian Food Inspection Agency (CFIA)



MANAGE FORESTS & LAND

< SHARE

Landowner Assistance +

Forest Health -

Diseases

Insects

Invasive Species

Forest Pest

Management

Cooperative

Vegetation Management

 Water Resources &
BMPs +

Wildlife Management +

Forest Taxation +

Forest Legacy

Windbreaks

FOREST HEALTH: EMERALD ASH BORER

The emerald ash borer is a destructive, non-native, wood-boring pest of ash trees. EAB is a significant threat to urban, suburban and rural forests. It kills both stressed and healthy ash trees. EAB is very aggressive and ash trees may die within two or three years after they become infested.

Native to Asia, the emerald ash borer beetle was discovered in North America in southeast Michigan in 2002. Since then, infestations of this invasive pest have spread to more than half the states in America - including Texas (2016), killing millions of ash trees.

[Emerald ash borer fact sheet](#)

Current situation

In April 2016, four adult EAB beetles were caught and confirmed in a monitoring trap in Harrison County just south of Kamack, Texas.

It is important to note that there has been no confirmation of ash trees infested with EAB. The adult beetles were caught in a detection trap but to date, the ash tree on which it was hung does not show symptoms of an EAB attack.

The Animal and Plant Health Inspection Service (APHIS) national EAB laboratory confirmed on May 6, 2016 that the caught beetles are EAB.

Texas A&M Forest Service began monitoring for the pest in 2012 by strategically deploying detection traps each spring. The traps are monitored throughout the spring and summer months during peak EAB emergence and movement.

+ The role of Texas A&M Forest Service

+ Identifying ash trees and symptoms of EAB

+ Preparing Texas communities: EAB and the urban forest

+ How EAB spreads and kills ash trees

+ Managing EAB: What you can do and where to find help

+ Understanding EAB regulations in Texas

Texas Forest Service Website:

www.texasforestservicetamu.edu

- ✓ Information on EAB
- ✓ Placed detection traps throughout the state since 2012
- ✓ Confirmation of EAB in North East Texas



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December 5, 2016

ISA Tree Risk Assessment Quatification (TRAQ) – Houston, Texas

Check out our Events

December 8, 2016

ISA Tree Risk Assessment Quatification (TRAQ) – Austin, Texas

Find an Arborist

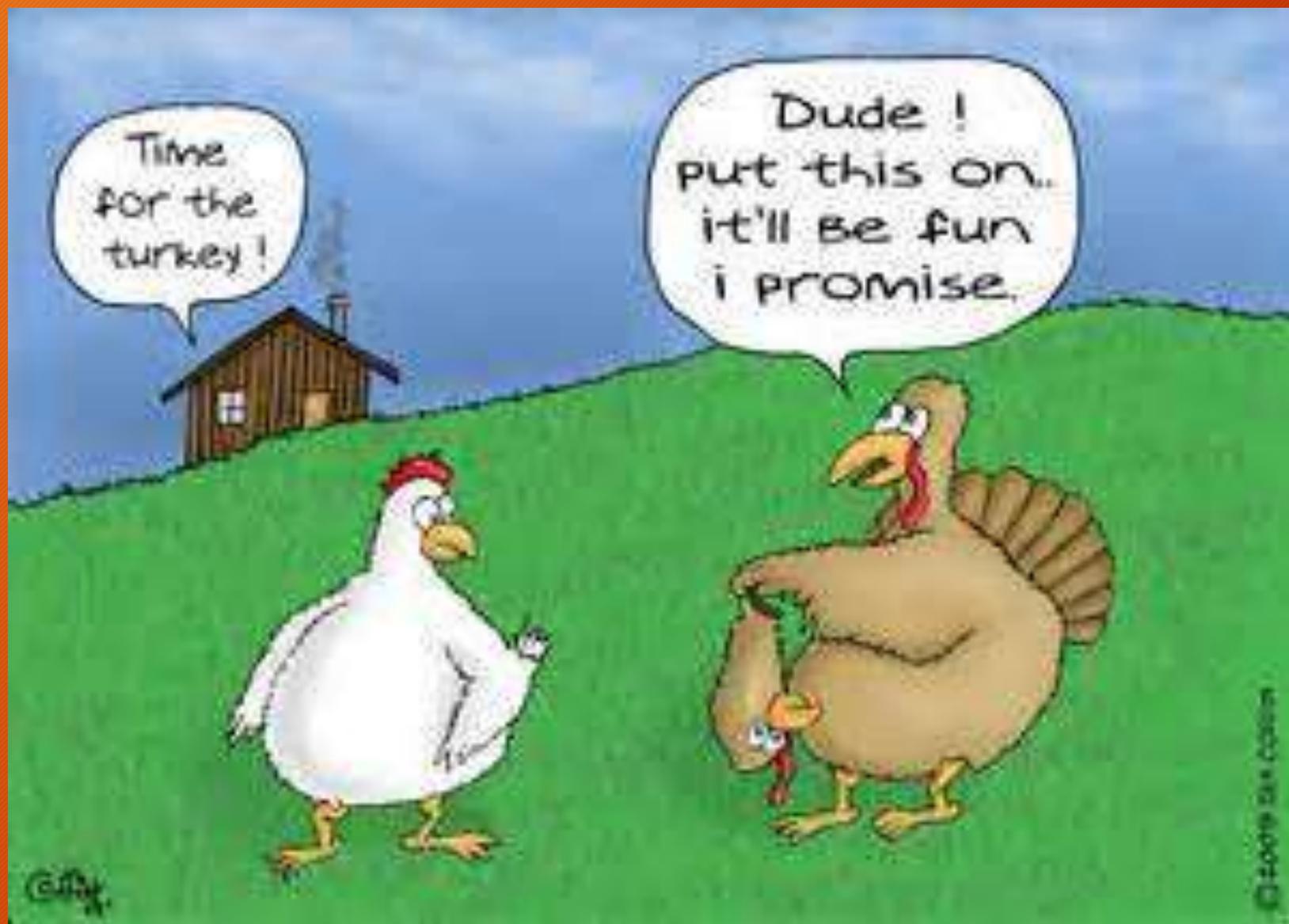
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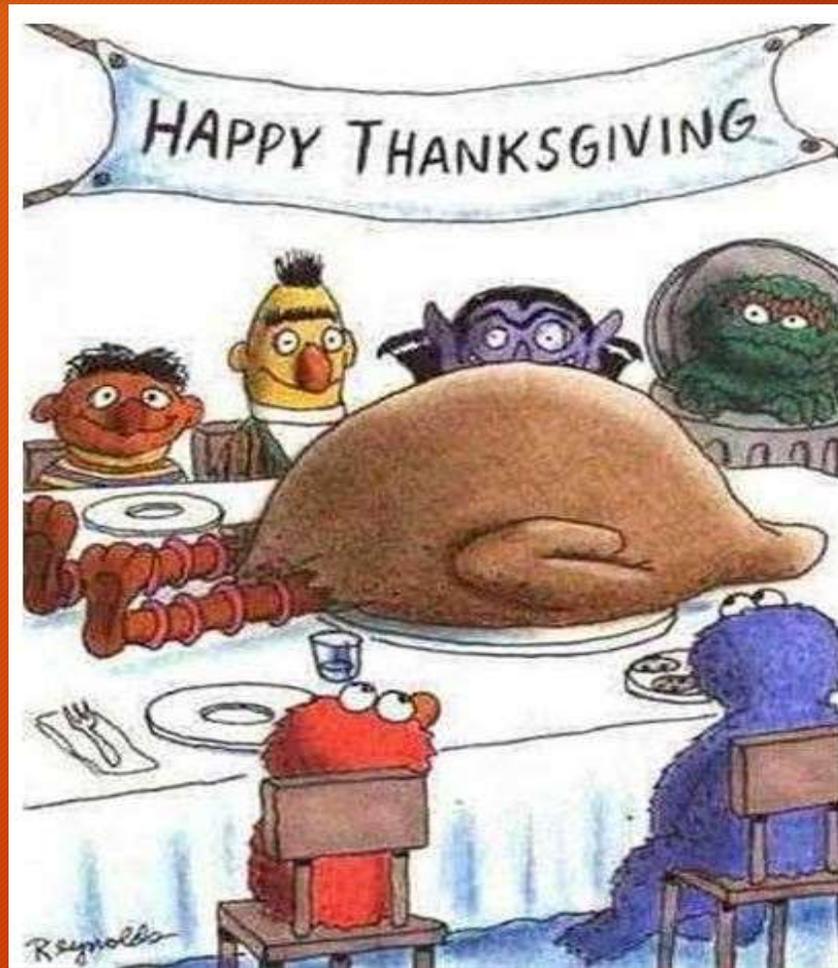
International Society of Arboriculture - Texas Chapter:

www.isatexas.com

- ✓ Commercial certified arborist finder
- ✓ Access to newsletters
- ✓ Tree care information
- ✓ Pest information



Enjoy the planting and holiday season



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