12 Mistakes We Make With Trees!

Jonathan M. David
jdavid@docstreecare.com
940-202-0009

www.docstreecare.com

1

But first . . .

Two hot topics!

- Rapid Oak Decline
- Emerald Ash Borers

2

Rapid Oak Decline

- Mainly on Post Oaks
- Thinning canopies
- Poor leaf color
- Rapidly wilt in summer
- Poorly Drained Soils



3

Rapid Oak Decline

- Combination of pathogens
  - Phytophthora Root Rot
  - Hypoxylon Canker
- Soil-borne fungus (oomycete)
- Saturated soils
- Soil temp: 59° to 77°
- Root injury, then foliar wilt



4

Rapid Oak Decline

- Phytophthora Root Rot
- Two RX options
  - Trunk injection
  - Soil drenches
- Site Factors
  - Limit Watering
  - Protect Root Zone
  - Mitigate Existing Issues

Does Not Spread from Tree to Tree



5

Rapid Oak Decline

- Other Treatment Options
  - Growth Regulator
  - Fertilization
  - Whitcomb Method
  - Vertical Mulching



6

Rapid Oak Decline



Is Not Oak Wilt

Oak Wilt

- spreads outward from an epicenter
- moves from tree to tree through root grafting
- Spreads by nitidulid beetle



7

Emerald Ash Borer

- All Ash species at risk
- Millions of Ash trees lost
- Found in North Texas
- D-shaped exit holes
- Moves with firewood
- Treatment:
  - trunk injection (2 years)
  - soil drench (annually)



8

Emerald Ash Borer





9

12 Mistakes We Make With Trees

10

Mistake #1

- We plant too deeply



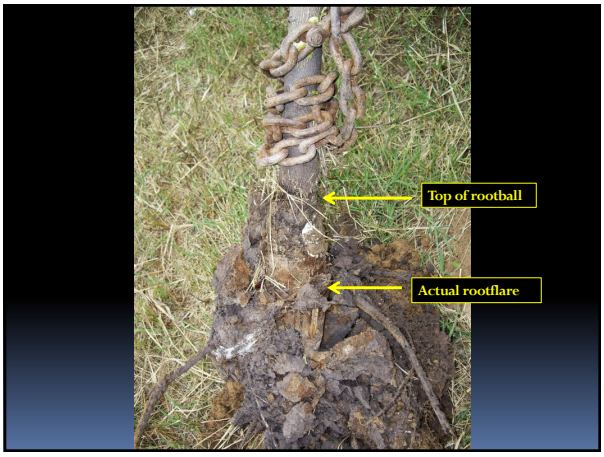
11



12



13



14



15



16

Mistake #2

We plant trees with bad root systems

- Circling roots
- Pot-bound roots – don't forget to "shave"
- Monitor and prune girdling roots

17



18



19



20



21



22

Mistake #3

- We leave stuff around the base of trees
  - Twine
  - Wire
  - Webbing
  - Straps
  - Rope
  - Synthetic burlap



23



24



25



26



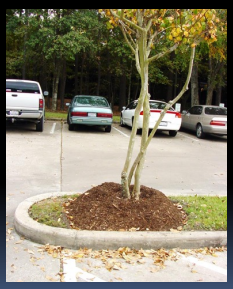
27



28

Mistake # 4

- We use too much mulch!

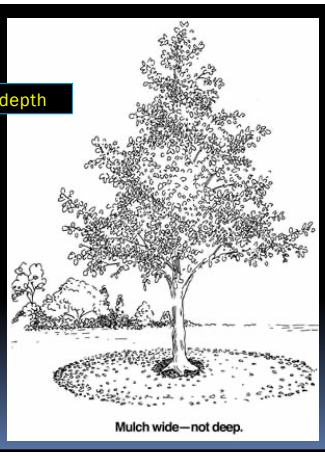


29



30

4" max depth



31



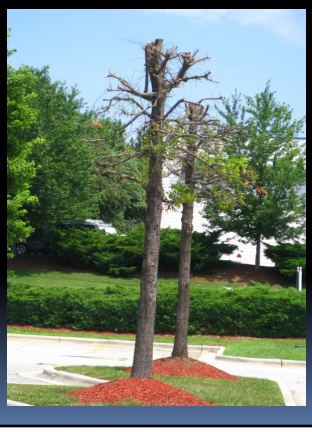
32



33



34



35

Mistake # 4B

- We ignore fire ants



36



37

Mistake # 5

- Sunscald
- We forget to wrap trunks of thin-barked trees, like Red Oak and Maples, after planting!



38



Sunscald – usually on southwest side of trunk.

39



Sunscald often takes a year or two to show up

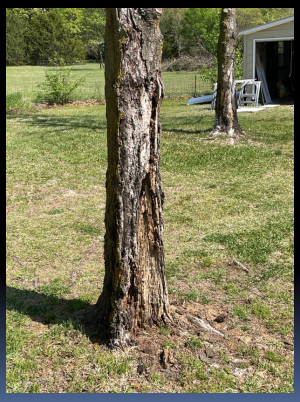
- Vascular damage
- Borers
- Top dieback
- Root loss
- Decay / cracking
- Structurally weak

40



Borer spray, then wrap trunk from the ground up.

41



Orient to North

Newly planted trees that are oriented in the same direction they have grown typically avoid sunscald.

42

Mistake # 6

- We let borers attack stressed trees
  - New trees / transplants
  - Drought / flood
  - Root damage / earthfill / trenching
  - Storm damage / sunscald
  - Other stresses / herbicide / etc.

43



Borer prevention:

- Ash
- Cedar Elm
- Crabapple
- Flowering Peach
- Red Oak
- Live Oak
- Mexican Plum
- Poplar
- Post Oaks
- Purple Plum
- Pine
- Willow

Monthly trunk sprays to lower 6-8' of trunk on new trees.

44



45



46



47



48



49

Mistake # 7

- We over-prune trees



50



51



52

Avoid stripping-out interior foliage.

- Photosynthesis - hot weather
- Mass-damping
- Carbohydrate transfer

Safe to prune:

- Mature trees: up to 15%
- Very young trees: less than 30%



53

Mistake #8

- We make poor pruning cuts
  - Stubs
  - Flush cuts
  - Rips & Tears
  - Collar Cuts are recommended!

54



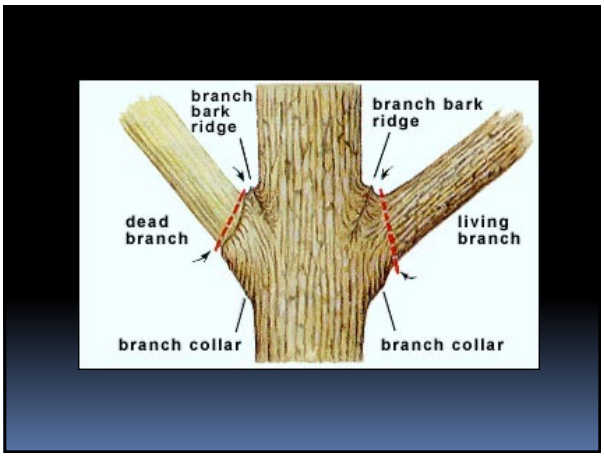
55



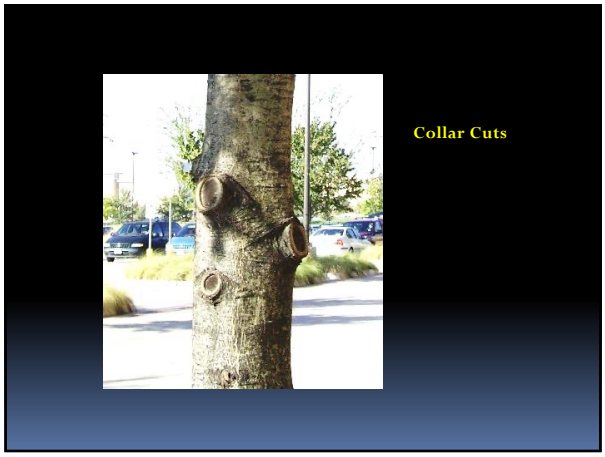
56



57



58



59



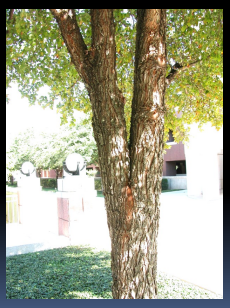
60



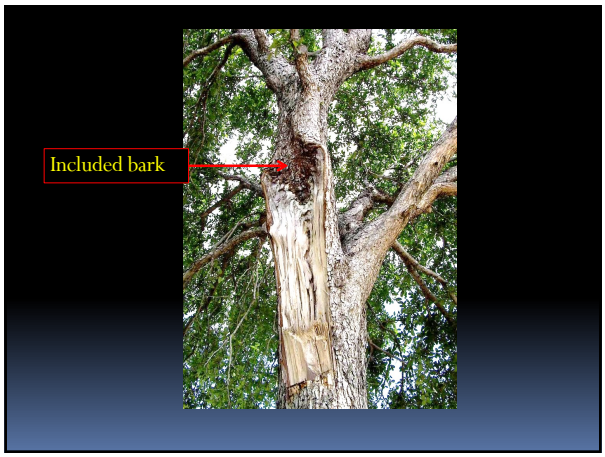
61

Mistake # 9

- We leave codominant trunks / included bark



62



63



64



65

Mistake #10

- We pile stuff on top of tree roots



66



67



68



69



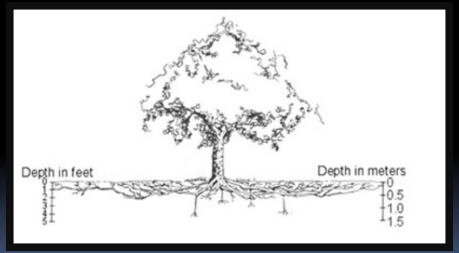
70



71

Mistake #10B

- We underestimate the size of the root system



University of Minnesota

72



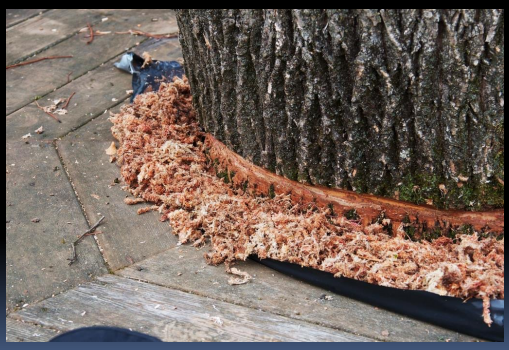
73

Mistake #11

- We make the tree fit the site - instead of making the site fit the tree.



74



75



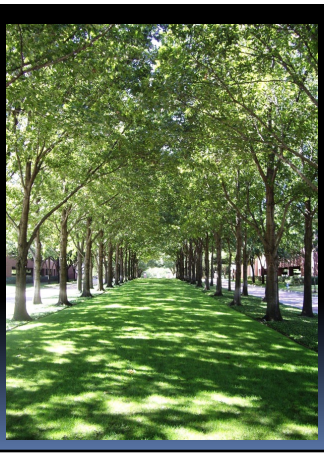
76

Mistake #11B

- We plant monocultures and rows of trees



77



Beautiful –
but insects and diseases love these situations!

78



79

Mistake # 12

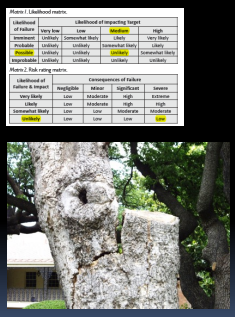
- We fail to manage tree risk
- Gravity always wins – trees fall down



80

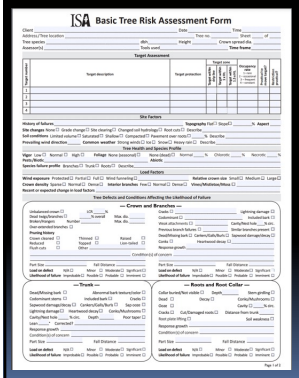
TRAQ – Tree Risk Assessment Protocols

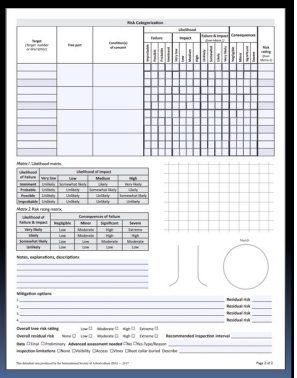




81

TRAQ – Tree Risk Assessment Protocols


ISA Basic Tree Risk Assessment Form



82

12 Mistakes We Make With Trees!

Jonathan M. David
jdavid@docstreecare.com
940-202-0009

www.docstreecare.com

83