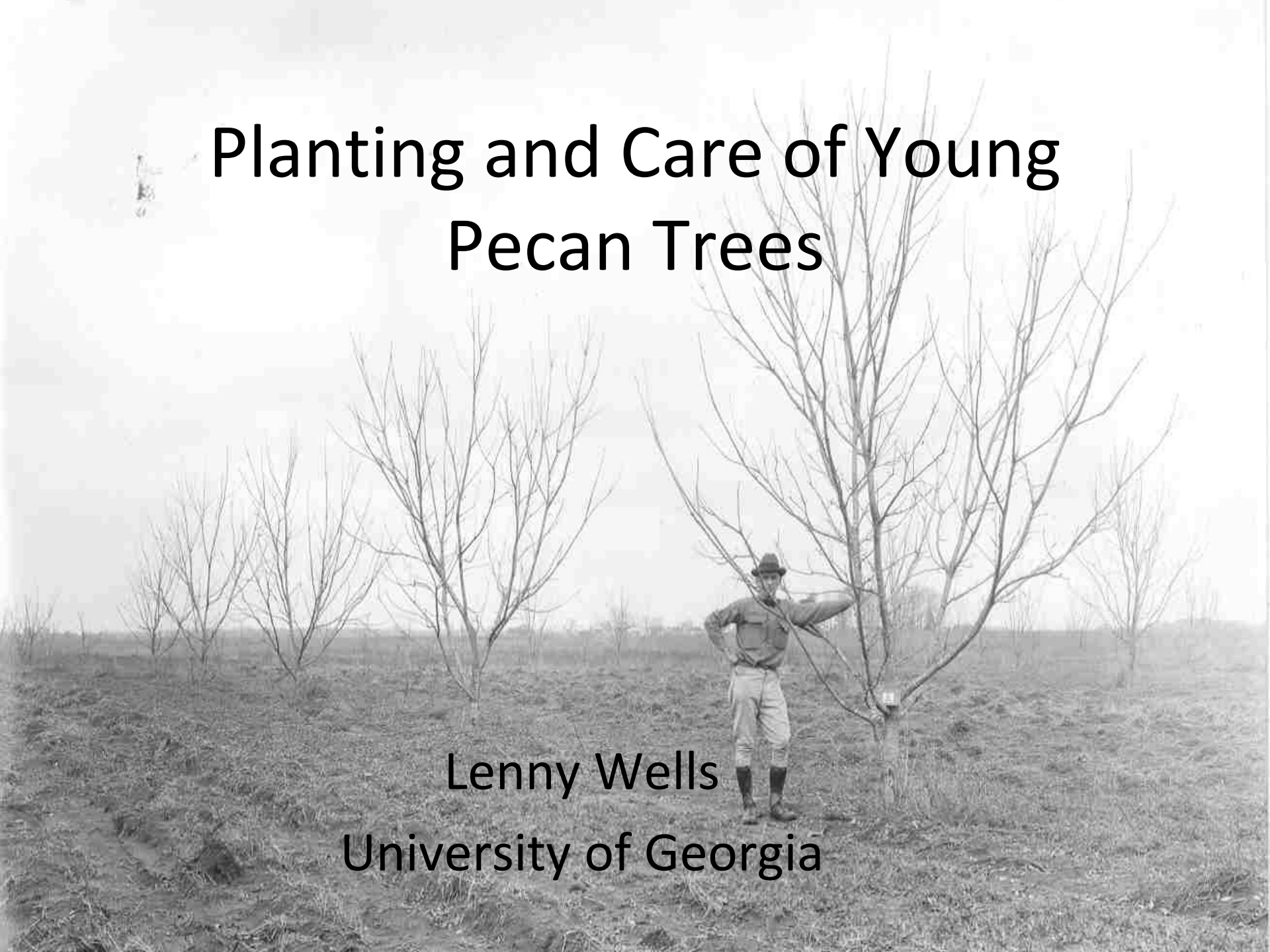


Planting and Care of Young Pecan Trees

Lenny Wells

University of Georgia



Tree Types

- Container grown
 - Plant late September or early October is best
 - Plant while dormant works well
 - Spring planting less successful
- Bareroot
 - Plant while dormant: January - March



Planting Too Deep

- Most common cause of problems with young pecan trees
 - Trees unable to develop adequate brace roots

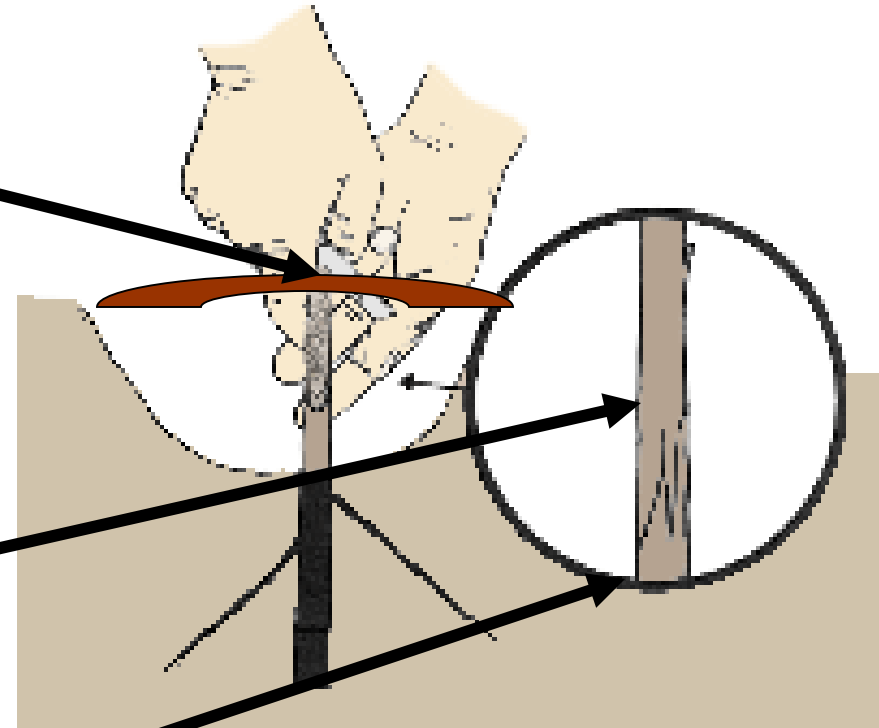


Why are trees commonly planted too deep?

When a tree is grafted below soil line, an artificial planting depth discoloration is created when soil is mounded back, and trees are replanted to this depth “the depth they grew in the nursery”. They often then sink further as soil settles.

Pecan, roots won't readily develop from the mature-wood grafted top.

So major roots needed for anchorage cannot develop except underground several inches, where their effectiveness is greatly diminished.





- Planting Depth
 - Better to plant too shallow than too deep
 - Highest lateral root even with or just under soil line



Planting

- Bareroot: prune root to 18 inches, remove lateral roots; prune top by 1/3-1/4.
- Container: prune any wrapped roots at container bottom



30"

20"

10"

Root length at planting

Tree survival & growth depends on new root development, not the existing root system. New roots develop from the cut surface. More important in tighter soils.

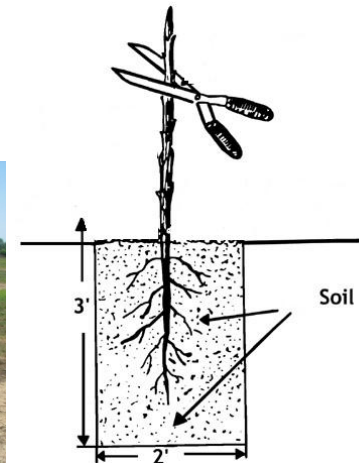


Root Pruning

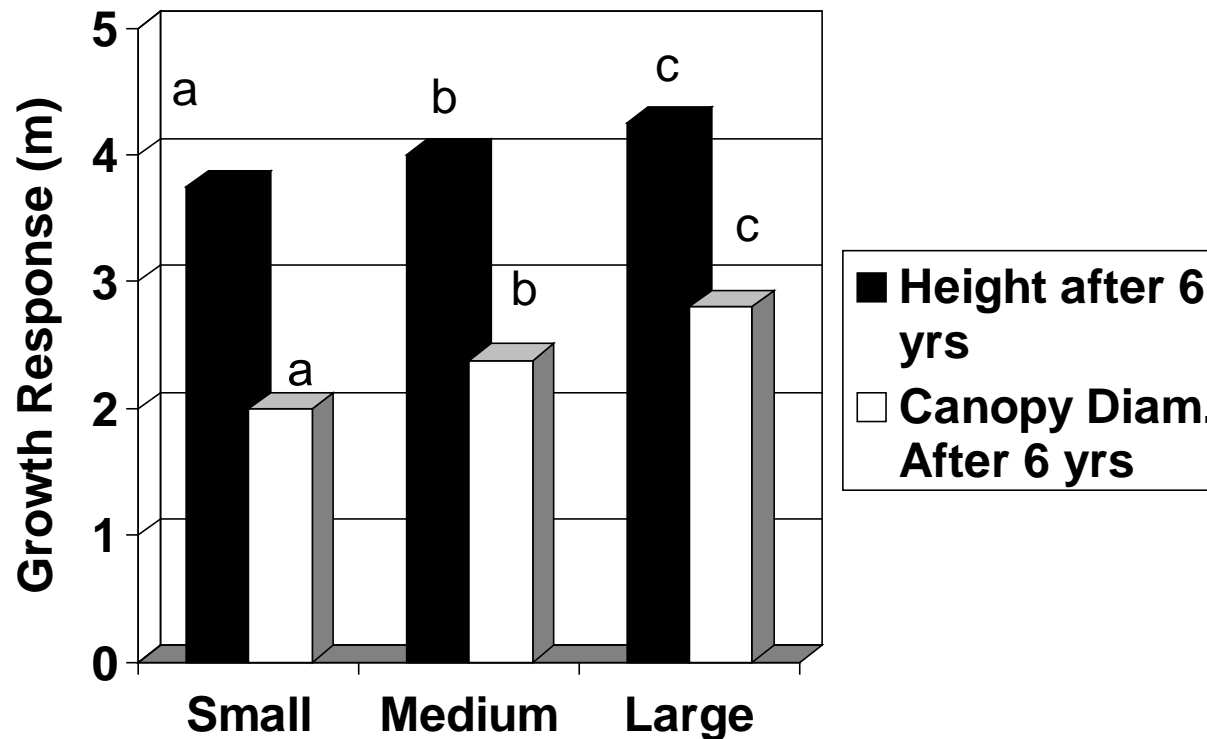


Planting

- Do not allow tree roots to dry out
- Heal-in for long term
 - Keep roots moist and covered in field
- Dig with 18" auger, deep enough to hold root system
- Fill hole with same soil
- Fill hole $\frac{1}{4}$ - $\frac{1}{2}$ full of water, add dirt into the hole
- Pack soil, but do not compact
- Protect trunks from sunscald & herbicide
 - Trunk wraps/guards
 - White latex paint
- Prune top back by $\frac{1}{3}$ to $\frac{1}{4}$
 - Faster rate of growth & more vigorous
 - Leave 2 buds



What size tree should I plant?



Small=3'-6'
Medium=6'-7'
Large=7'-9'

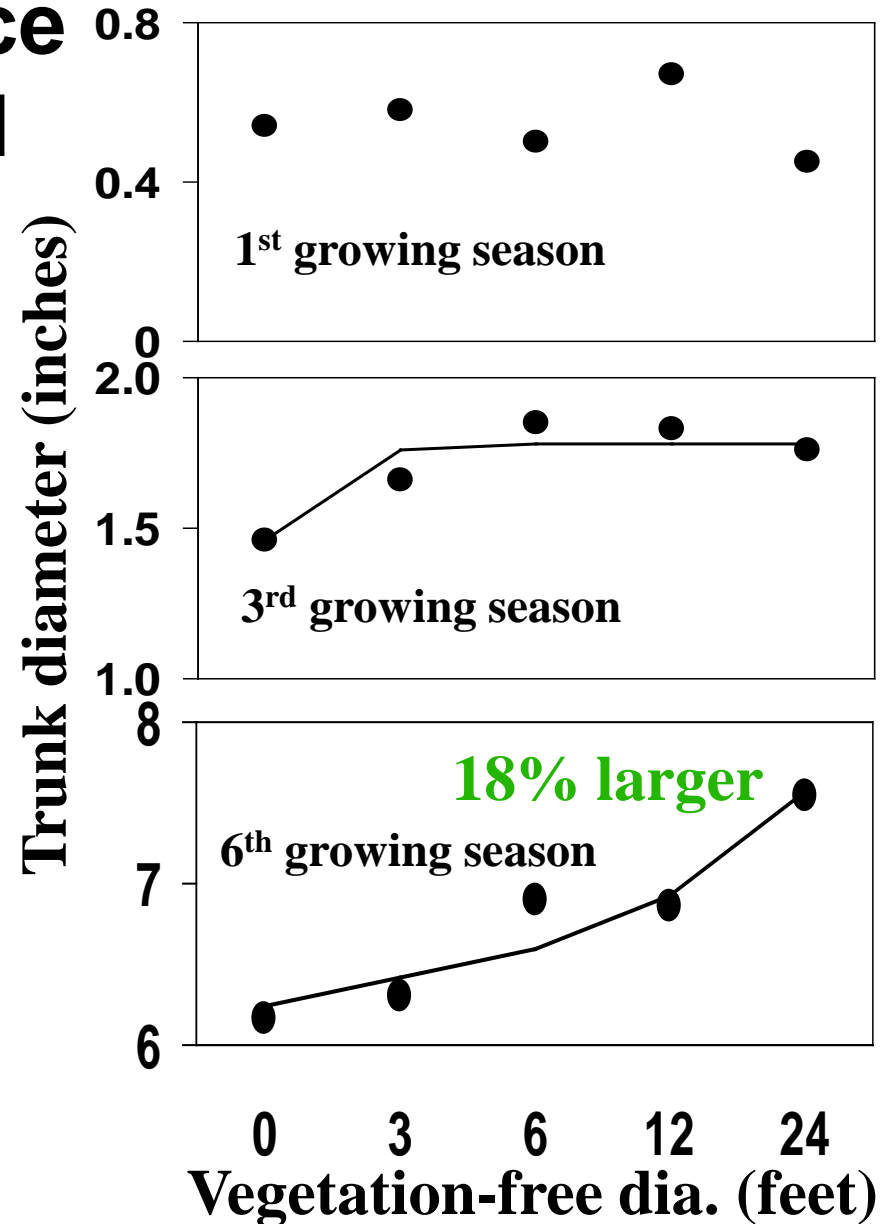
THE TWO MOST IMPORTANT FACTORS IN YOUNG TREE SURVIVAL & GROWTH

- Eliminate Weed Competition
- Adequate irrigation



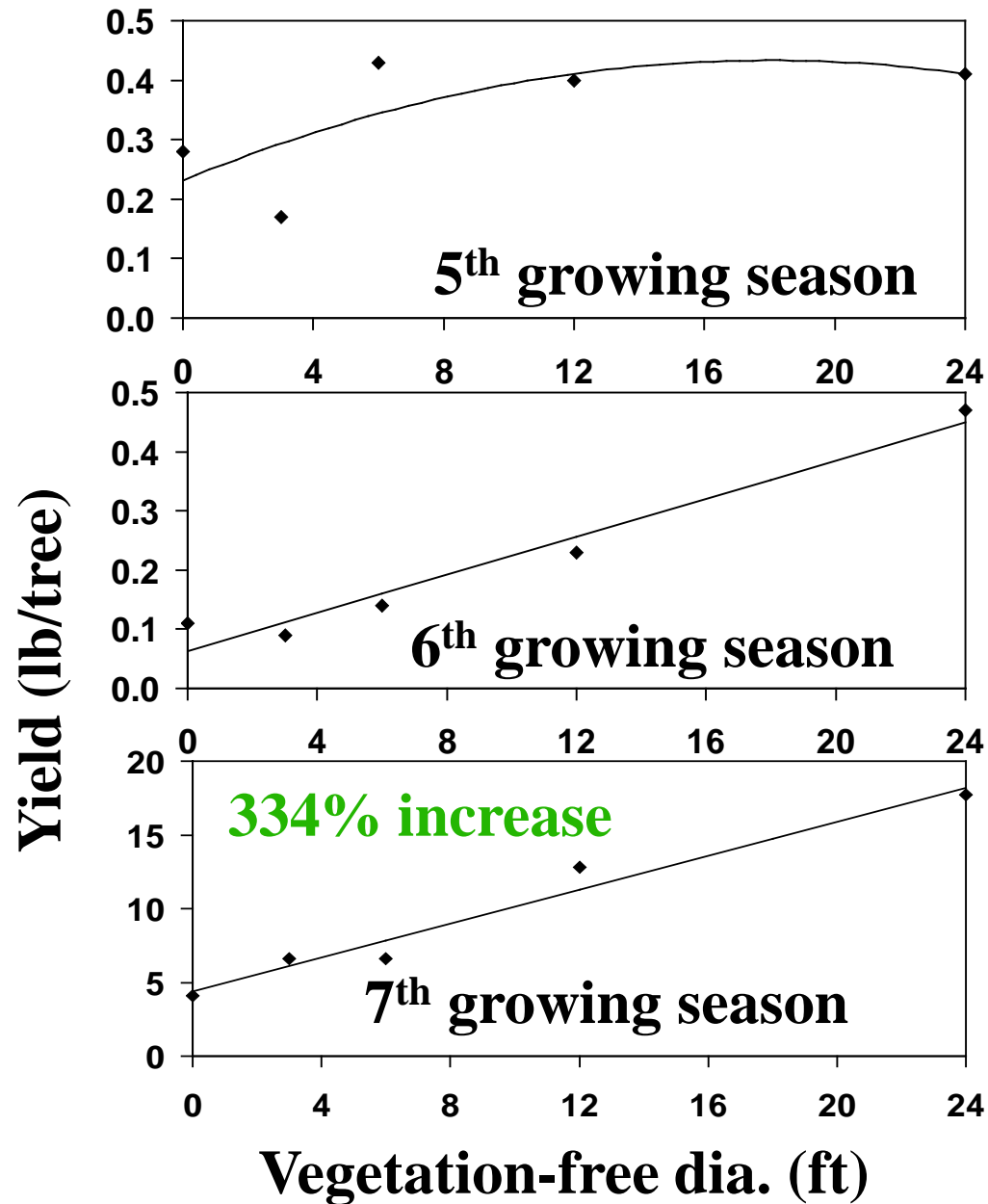
Vegetation-free Distance in Bermudagrass Sod

- ‘Kanza’ on Giles rootstock
- Bareroot whips \approx 6 ft tall
- Irrigated as needed with solid-set sprinkler
- Circles maintained vegetation free with glyphosate, entire area treated with Surflan
- Results
 - No effect 1st & 2nd year
 - 3rd year largest tree in 3 – 24 ft vegetation-free circle
 - 4th year largest tree in 6 – 24 ft vegetation-free circle
 - 5th & 6th largest in 24 ft vegetation-free circle



YIELD

- Token yield in the 5th & 6th growing seasons.
 - 5th year 6 ft or greater produced most yield
 - 6th year 24 ft dia most yield
- 7th growing season 18 lbs/tree (1089 lb/a; 20'x35' spacing) with 24 ft dia.



What Herbicides are Safe to Use Around Young Trees?

- Postmergence:
 - Glyphosate or Paraquat ---burndown
 - Sandea---nutsedge, pigweed, wild radish
 - Aim---pigweed/morning glory
 - Basagran—some broadleaves and yellow nutsedge
 - Poast---annual and perennial grasses
 - Select---annual/perennial grasses
 - Fusilade---annual/perennial grasses
- Pre-emergence:
 - Surflan
 - Prowl
 - Chateau



Irrigating Young Trees

– Drip

- Most efficient water application method.
- Need to cover about 50% of the root zone with water.
- Can apply nitrogen through the irrigation system.
- Requires excellent filtration.
- Requires treatment for microorganisms to avoid stoppage if water source is surface.
- Can be automated.

– Microsprinkler

- Less efficient water application than drip, but acceptable.
- Can cover most of the root zone.
- Requires good filtration, but not as good as drip.
- Can be automated.



1st year trees

4hrs every other day (8 gph emitter)

Budbreak through September

Protecting Young Trees From Pests

- Budbreak:

- Pecan budmoth (chlorpyrifos)
- Phylloxera (imidaclopid, chlorpyrifos)
- Boring Beetles (chlorpyrifos)
- Asian Ambrosia Beetle (permethrin)

Pecan Budmoth Damage



UGA1224105

- Budbreak – July:

- Leaf hoppers (imidaclopid, chlorpyrifos)
- Thrips (chlorpyrifos)



Leafhopper Damage

- June-September:

- Walnut caterpillar, Fall webworms (chlorpyrifos, pyrethroid)



Walnut caterpillar

Deer Protection

- Two ways to protect trees from deer:
 - Repellants
 - Elimination

Garlic Oil Dispenser
Bag of 50: \$29.25
Bag of 250: \$111.40
www.gemplers.com



Will remove
large bucks for
free

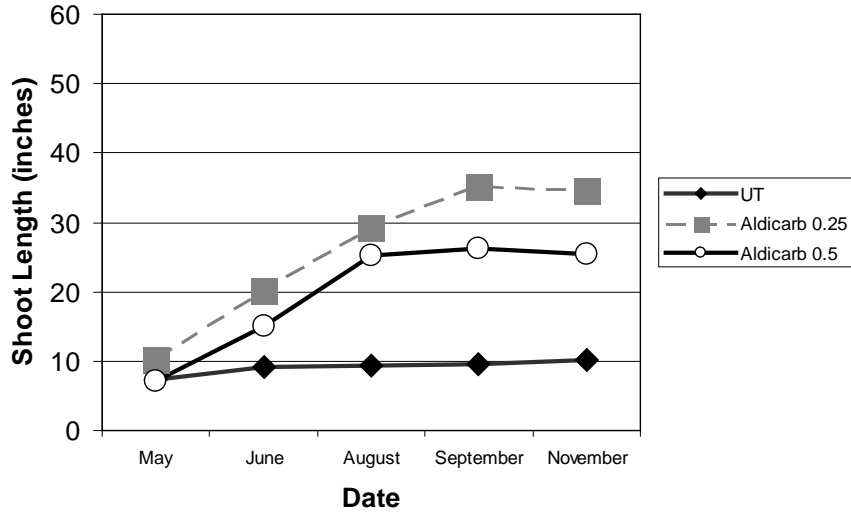
Fertilization



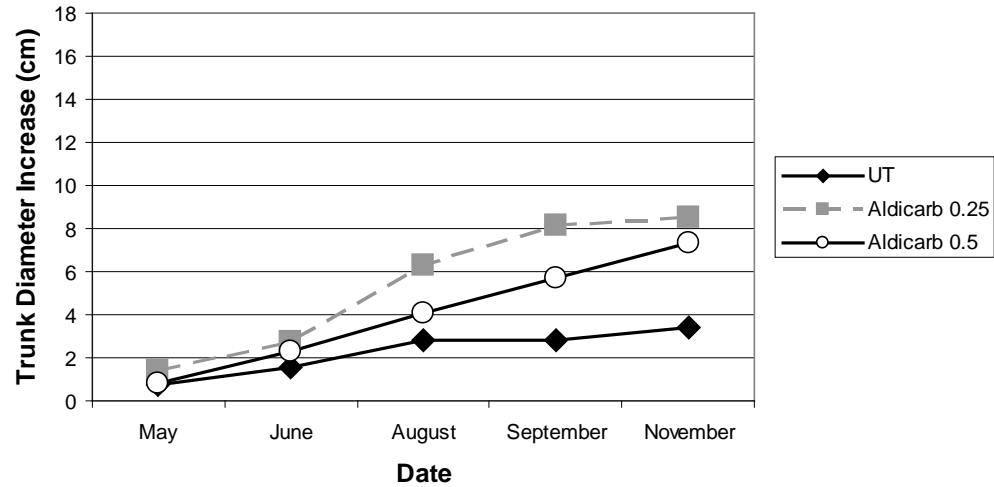
- Year 1:
 - No fertilizer until May/June
 - ½ lb 10-10-10
 - Apply Zinc Sulfate at 1 lb per tree for the 1st 3 yrs.
 - 2-3 sprays foliar Zn
 - Mouse Ear Trees:
 - Apply Ni at rate of 1.5 qts/100 gallons or

Effect of Temik on Young Pecan Trees

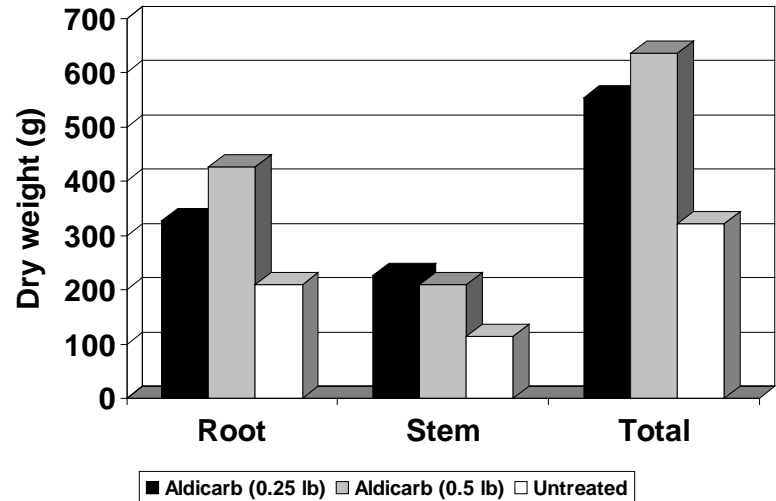
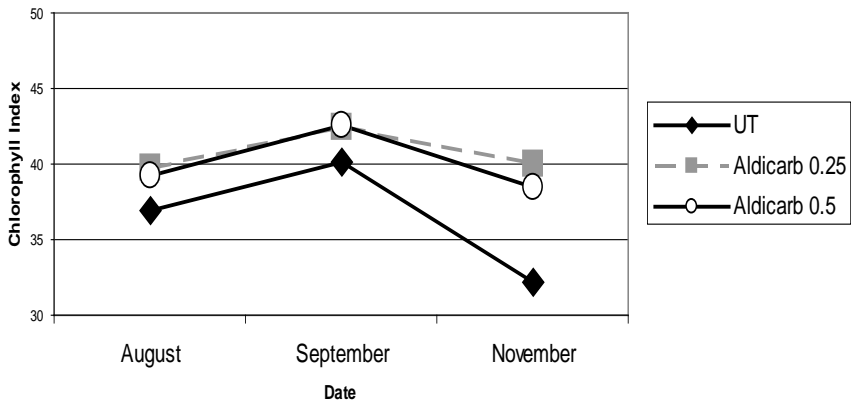
Seedling Shoot Length



Seedling Trunk Diameter

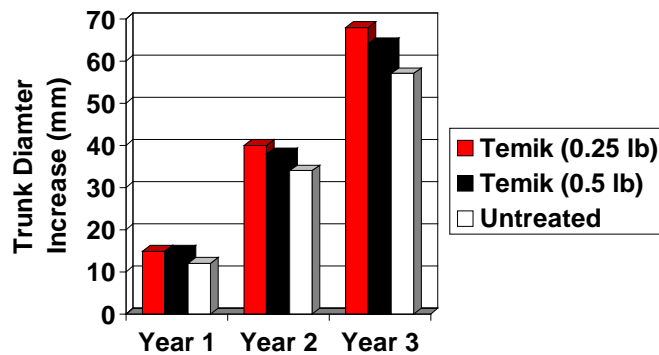
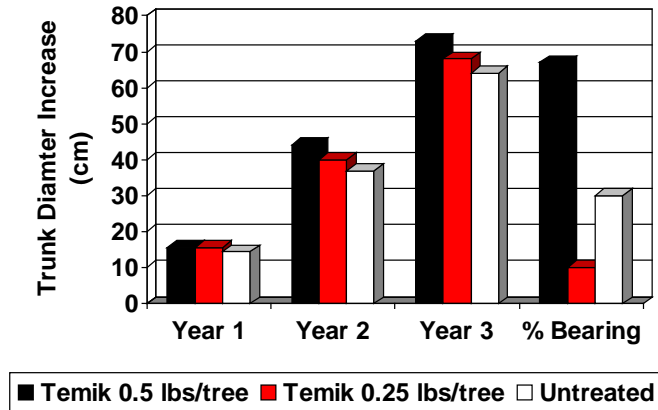


Seedling

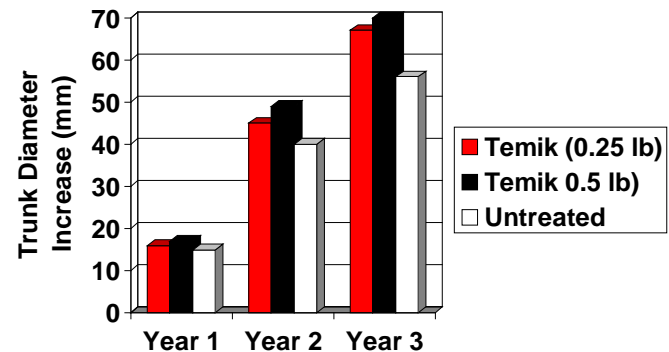


Effect of Temik on Young Pecan Trees

Cape Fear



Sumner



Elliott

First Year Orchard Establishment Costs

Item	Unit	Quant.	Price	\$ Per acre
lime	Ton	1	30	30
Fert	lbs	12	3.33	39.96
Zinc	lbs	24	0.35	8.40
Herbicide	Appl	3	29.25	87.75
Trees	Tree	24	15	360
Labor	hrs	20	7	140
Irrigation (oper.)		1	13	13
Irrig. Install.	acre			\$630
Spray Material	acre	2	15	30

Note: Irrigation Installation does not include pump

Total

\$1339.11

Costs based on 30 X 60 spacing = 24 trees per acre

Questions?

