



#### MORE WOOD. LESS LAND.®



## ARBORGEN Hardwood Nursery Mgmt





### **Topics - Outline**

- Introduction
- Field Prep
  - Pit
  - Fumigation
  - Mycorrhizal
  - Soil Testing
- Seed
  - Selection
  - Pre-plant Treatment
- Planting Crop Care Harvest
- Information Resources

# ARBORGEN3.

#### Introduction

- Robert Cross
  - Manager GA SuperTree Nursery
  - Shellman, GA
- Started with IP 1972
  - Second Creek Nursery 1976
- Experience 32 years
- Produced 40 Million Hardwoods
- Eighty Species
- David South & Herb.



# ARBORGEN GA SuperTree Team





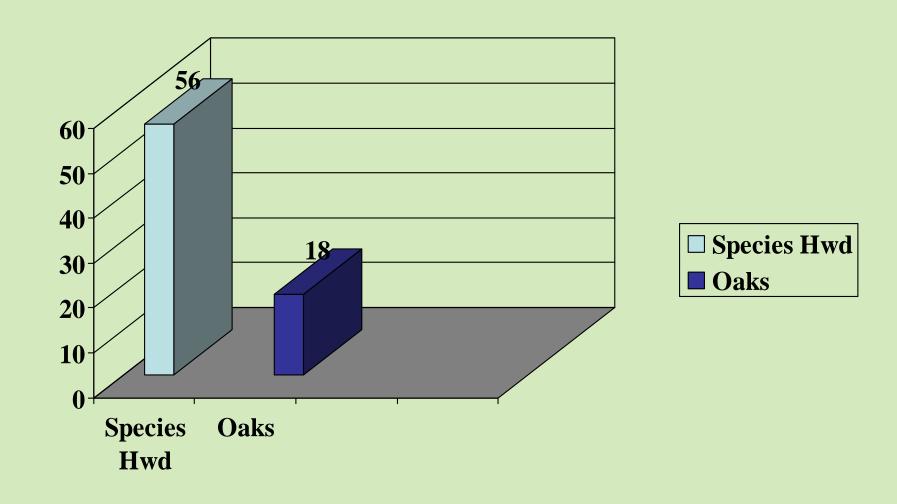
#### Introduction

#### **GA SuperTree Nursery**

- Built 1996 Randolph County, GA
- Produce 2.5 Million Hwds
- Produce 55 Million Pines
- Produced 56 Different Species Hwd
- Eighteen Species of Oaks
- Customers in five states
- Wetlands Mitigation Restoration
- Wildlife Plantings
- Forestry



#### Georgia SuperTree Nursery 2008 – 2009 Season





## Field Prep

- Field Pit
- Fumigation
- Mycorrhizal
  - Endo
- Soil Testing

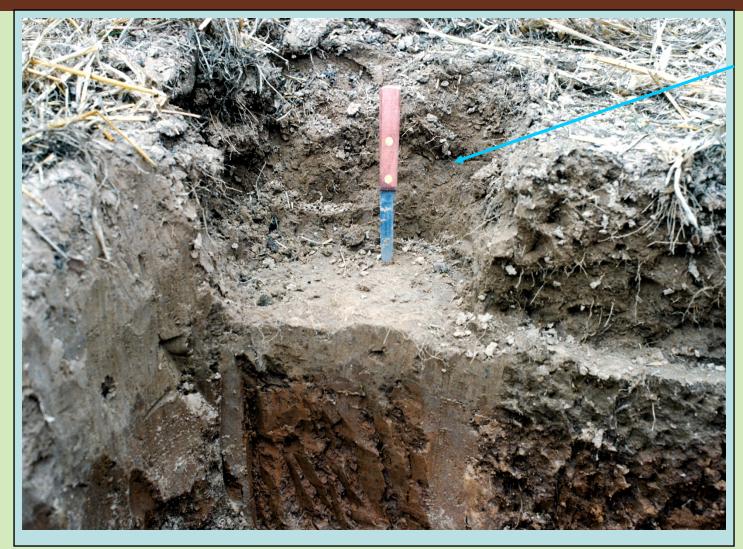


## Field Prep

• Field Pit



### Site Prep Soil Compaction



Gotcha!



## Field Prep

Fumigation



## **Strip Fumigation**





### Fumigation 1<sup>st</sup> Solid Tarp Applicator



Yea, That makes it go forward!



### Fumigation 1<sup>st</sup> Solid Tarp Applicator





# Fumigation 1st Solid Tarp Applicator

Are there buffers required with this rig?





## Fall Fumigation MC-2 400 lbs/ac





## Field Prep

- Mycorrhizal
  - Endo



#### **Sweetgum Planting**

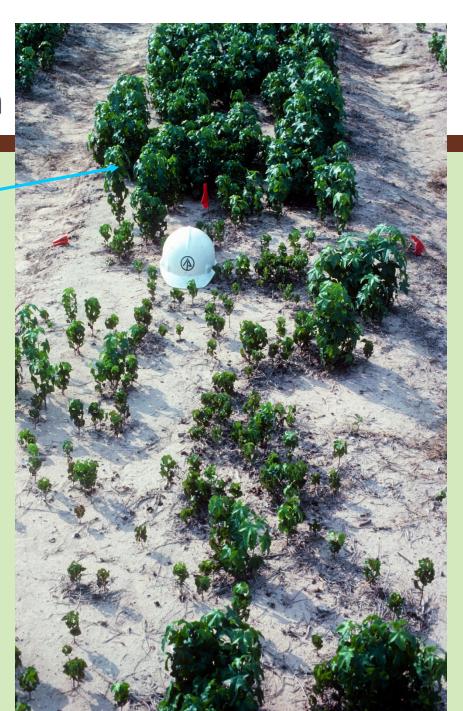


Sweetgum 1977 – LA Forestry Commission Columbia, LA



### MYC Sweetgum

Treated w/ Endo MYC.





### Sweetgum With & Without Myc





### **Myc Trials**





### MYC – 10" Clay Pots





## **Strip Fumigation**





### **Myc Application**





#### Cover Crop Sudex – 100 lbs/AC





#### Fall Cover Crop Sudex 60 lbs/ac





# **Ed Cordell Myc Applicator**





# **Ed Cordell Myc Applicator**





## Mary Lou & Sweetgum 4' – First Year





#### Sweetgum 1 Year Old





# Hardwoods With Myc











#### **Mycorrhizal Summary**

- Fumigate 400 Lbs MC-2
- Use Sudex or Sorghum 100 lbs/ac
- Cover crop is a good indicator
- Very prolific with a suitable host
- Does not have to incorporated every year
- Some benefits can be offset using DAP



### Field Prep

- Soil Testing
  - Taken in the Fall
  - A&L Labs
  - Dr. Chuck Davey
  - The Southern Forest Nursery Soil Testing Program



## **ARBORGEN** Field Prep - Amendments

- Cotton Gin Trash
- Pearl Millet
- Sudex



#### **Hardwood Seed**

#### Selection

- Customer Needs
- Planting Zones
- Seed Vendors
- Substitutions
- Personal Knowledge
- Seed Size Oaks
- Storage Handling
- Planting Equip.
- Planting Density
- Production by Species







#### **Hardwood Seed**

#### Preplant Treatment

- Handbook 470
- Networking
- Fall Planting
- Stratification
  - In-House
  - Outside
- Seed Sizing
  - Floating Acorns
- Germination %





## No Seed Greenash from Cuttings





1 Yr Seedling 2 Yr old Stump Sprout 10 Sec dip in IBA 400,000









### **Hardwood Production**

- Planting
- Crop Care
- Harvesting



### **Hardwood Planting**



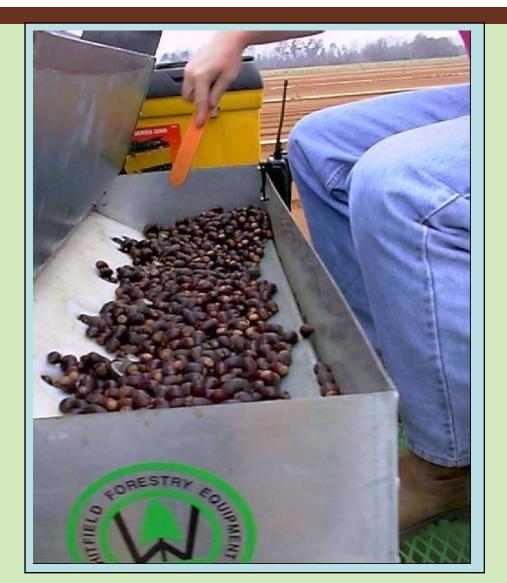


#### **Hardwood Planting**





#### **Hardwood Planting**





# ARBORGEN 5 – Row Oyjord Planter





#### **BARK on BEDS**





#### Oats 1 Bu/Ac

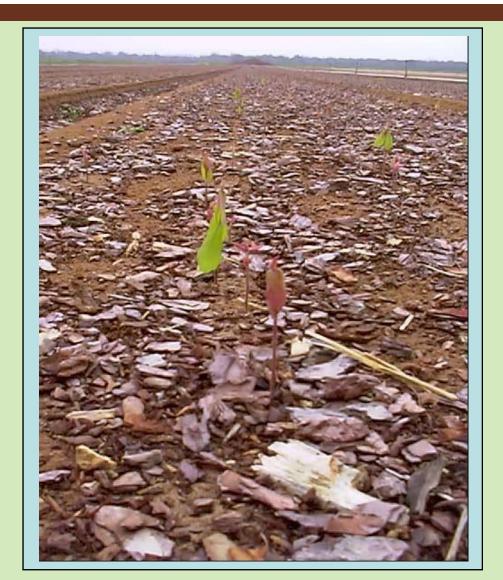




### **Fall Planted w/Oats**









#### **Weed Control**



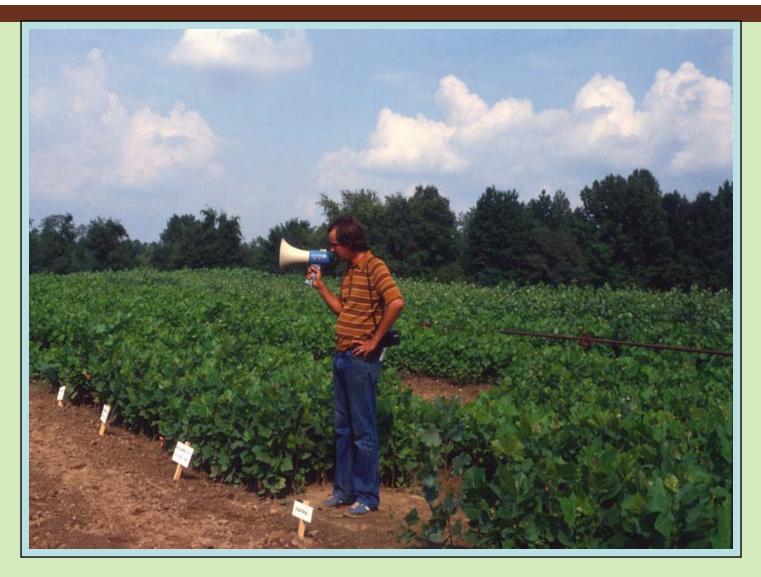














#### **Weed Control - Hardi**













#### **TOP PRUNING**



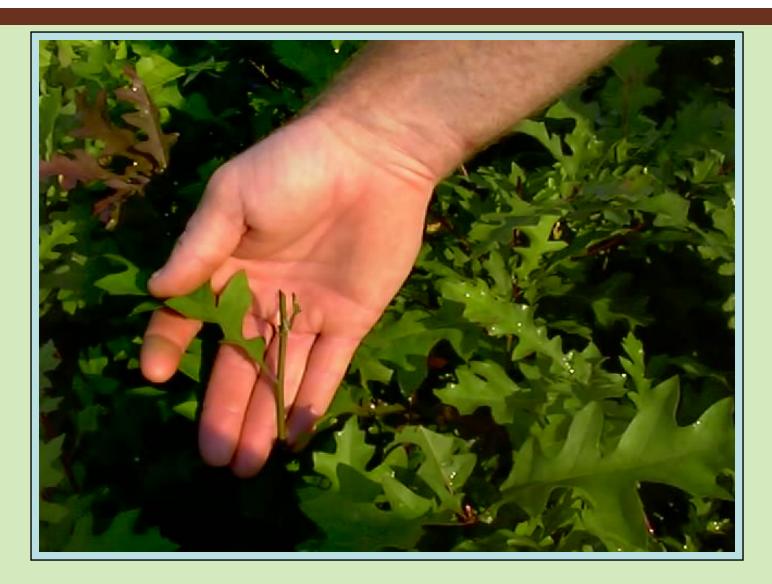


#### **Top Pruning Shumard**





#### **Nuttall Oak**





#### Sawtooth Oak





#### **Nine Month Willow Oak**





# "Get Hooked on Fishing" 1st Saturday June





### ARBORGEN LATERAL PRUNER & UNDERCUTTER





#### **LATERAL PRUNER**





#### **LATERAL PRUNER**





#### **UNDERCUTTER**





#### **UNDERCUTTER**





#### Sawtooth Undercut 8"



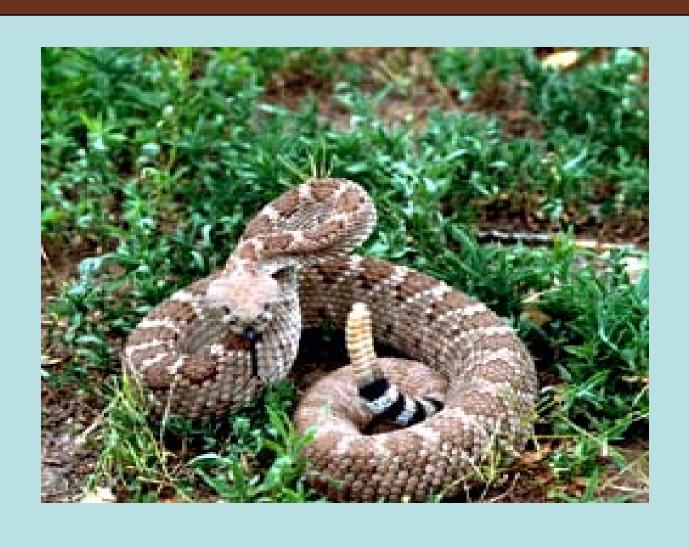


#### **INVENTORY**





## **Inventory vs Snakes**





#### **Red Oaks Ready to Harvest**





#### **Mann Lifter**







#### **FOBRO Lifter**





#### **Hardwood Lifting Crew**





#### **Harvesting Hardwoods In bags**





#### Haul-In Wagon





#### **Gelling Roots**





#### **Strapping Hardwoods**





#### **Strapping Hardwoods**





#### **Hardwood Storage**





#### **Hardwood Production**

- Information Resources
  - Handbook 470
  - Google
  - Networking BMP's
  - Auburn Coop
    - Newsletters
    - Publications
    - Internet Site
  - Dr. Chuck Davey
  - Forest Nursery Notes
  - Tree Planter's Notes
  - recross@arborgen.com



#### "Make My Day"





## "Raving Fans"

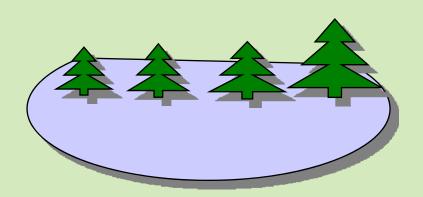
#### **Roundabout Swamp**

- Acres Approx. 1,240
- Seedlings
  - Bald Cypress 534,400
  - Pond Cypress 50,000
  - Container LL 58,000

642,400











# "Raving Fans"









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