Forest Management & Invasive Plants

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Larson & McGowin, Inc.
Overview

- Introduction
- Why do we treat invasive plants?
- Challenges we face in invasive plant control
- How we are controlling invasive plants
- Conclusion
- Q & A
Our History

- Founded in 1957
- Evolved from older firm, Pomeroy & McGowin, Inc.
- In Third Generation of Ownership
- Two Subsidiary Companies
- Headquarters: Mobile, AL
- Branches:
  - Watkinsville, GA
  - Birmingham, AL
  - Greenville, AL
  - Marion, AL
  - Monticello, AR
  - Merryville, LA
About Us

- Manage approximately 650,000 acres across the south
- 48 professionals dealing with various aspects of forestry
  - Real Estate
    - L&M Properties
  - Forestry Software
    - Silvics Solutions
  - Forestry Consulting
  - Forest Management
Our Clients

- **Small Private Landowners**
  - Family Farms, Personal Investors

- **Large Private Landowners**
  - Family Offices, High Net Worth Individuals

- **Private Investment/Institutional**
  - TIMO’s, University Endowments, Pension Funds

- **Public Investment/Forest Products/Government Agencies**
  - REIT’s, Sawmills/Pulp and Paper, USFS, AFC
Forest Management Services

- Harvest Planning/Budgets
- Timber Sale Administration
- Reforestation Supervision
- Road, Bridge, Boundary-line Maintenance
- Hunting Lease/Wildlife
- PEST MANAGEMENT
- Fire Protection
- Accounting/Record Keeping/ Reporting
Pest Management

- Beavers
- Southern Pine Beetles
- Native Plants
- Non-Native Invasive Plants

Invasive Plants are Pests!
WHY?

- Protect & Improve Investment
- Competition Control
- Wild Fire Prevention
- Ecosystem Protection
- Increase Biodiversity
- Aesthetics & Recreation
WHY?

Protect & Improve Investment
WHY?

- *Competition Control*
WHY?

Wild Fire Prevention
WHY?

Ecosystem Protection
WHY?

Increase Biodiversity
WHY?

Aesthetics & Recreation
Challenges

- Awareness
- Regional & Site Specific Issues
- MONEY
Challenges

Awareness

• Problems Invasive Species Present
• Invasive Plant Identification
• Timely Treatment
• Control Options
Regional Specific Issues

- Different SPECIES
- Different PROBLEMS
- Different REGIONS
Challenges

Site Specific Issues

- Non-Target Species
- Offsite Contamination
- Limited Treatment Options
Alabama Cogongrass Control Center (ACCC)
**Program Overview**

- Funded through grants (2010-13)
- Provided free herbicide treatment services to private, nonindustrial landowners
- Created jobs
- Promoted education and awareness
- Provided foundation for long-term management
ACCC Recap

- **Captured and managed large amounts of data**
  - Scout data:
    - 32 fields (GPS attributes, stand data, water proximity, prescription)
  - Treatment data:
    - 50 fields (GPS, spray data, weather conditions)
  - Inspection data:
    - 23 fields (crew, treatment observed, PPE, equipment condition)
ACCC Recap

Program Results

- Scouted
  - 1,145 properties
  - 26,831 patches over 37 counties
  - 2,176 cogongrass acres
  - 400,000+ acres covered

- Treatments
  - 7 companies, 49 crews
  - Overall: 16,145 patches (1,311 ac) treated

- Education
  Positive Press coverage
  - 65 presentations, 5 newspaper interviews & 5 published articles
Large Scale Treatment

- Allocate Capital
- Scout and map infestations
- Choose the appropriate treatment
- Execute treatment
- Constant monitoring
- Document EVERYTHING!
How much money should I set aside?

- How severe is/are the infestation(s)?
- What is/are the appropriate treatment(s)?
Scouting

How do we scout for infestations?

- **Become proficient at invasive species identification**
- **Allocate time to patrol property**
  - Utilize roads and trails
  - Walk transects
  - Closely inspect areas that have been disturbed
- **Utilize modern technology**
Aerial Imagery
Drones
Mapping

- Essential to effective control
- Take GPS Coordinates of infestation
- Flag and GPS perimeter of infestation
- Collect infestations data
- Upload field information to master database
Cogongrass Areas - 2015
Escambia County, Alabama

Mapping – 2015
Which treatment to use?

- Identify target species
- Identify non-target species, critical areas, and site specific limitations
- Know your available treatment options
  - Biological, Mechanical, and Chemical
- If available, consult data collected and prior experience
Chemical Treatment

- **By far, our most commonly used treatment**
- *Basal bark, cut stump, soil and/or foliar applied herbicide treatments*
- **Match the application method to the infestation size**
- **Choose appropriate herbicide for target and non-target species, treatment, and application method**
Foliar Applications

- Our most commonly used application method is foliar
- Three common foliar application methods
  - Hand applied (backpack sprayer)
  - Vehicle applied (skidder or UTV)
  - Aerial applied (helicopter)
Executing the Prescribed Treatment

Hand Applied
Executing the Prescribed Treatment
Executing the Prescribed Treatment

Skidder applied
Executing the Prescribed Treatment

Skidder applied
Executing the Prescribed Treatment

Aerial applied
It is imperative to continue to monitor infestations during and after treatment.

Evaluate the effectiveness of the:
- Application
  - Watch for skips
  - Treat any missed areas
- Prescription
  - Adequate control
  - Duration of control

Be vigilant of re-sprouting
- Rarely a one and done treatment
Constant Monitoring

Evaluating Effectiveness
Monitoring for Re-Sprouting
Stop The Spread

- Establish protocols to prevent further spreading of the invasive species
  - Minimize disturbance in and around infestations
  - Treat infestations prior to scheduled forestry activities
  - Clean equipment prior to moving on or off a tract with known infestations
  - Do not bring potentially contaminated materials onto property
STOP THE SPREAD!

REPORT COGONGRASS
clemson.edu/invasives
Take Home Message

- **In Conclusion:**
  - Awareness is key
  - Continuous scouting and monitoring
  - Keep good records
  - Have management strategies and plans in place
  - It's all about the **BOTTOM LINE**
Treatment?
What Happened Here?
Questions?