

# Florida Land Steward Webinar

## Vegetation Management Primer: Why Use Herbicides?

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**Please use the Q & A function to ask questions,  
not the Chat. Questions will be answered after the  
presentation.**

Please complete **the very short evaluation** at end of the webinar – *Thanks!*

Presentation slides and other reading materials for this webinar are available online at:

<https://programs.ifas.ufl.edu/florida-land-steward/>



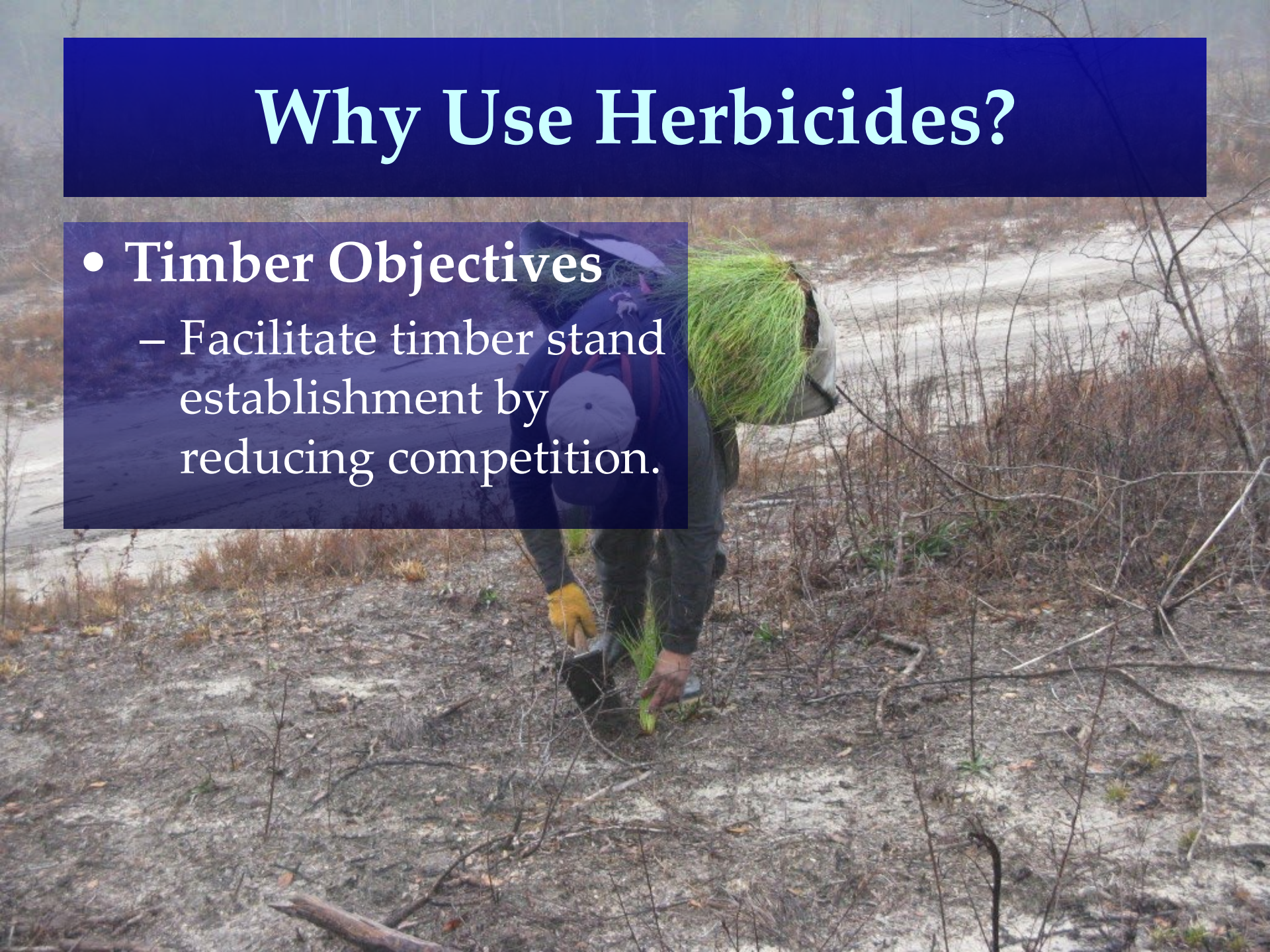
# Vegetation Management Primer: Why Use Herbicides?





# Why Use Herbicides?

- Timber Objectives
  - Facilitate timber stand establishment by reducing competition.





# Why Use Herbicides?

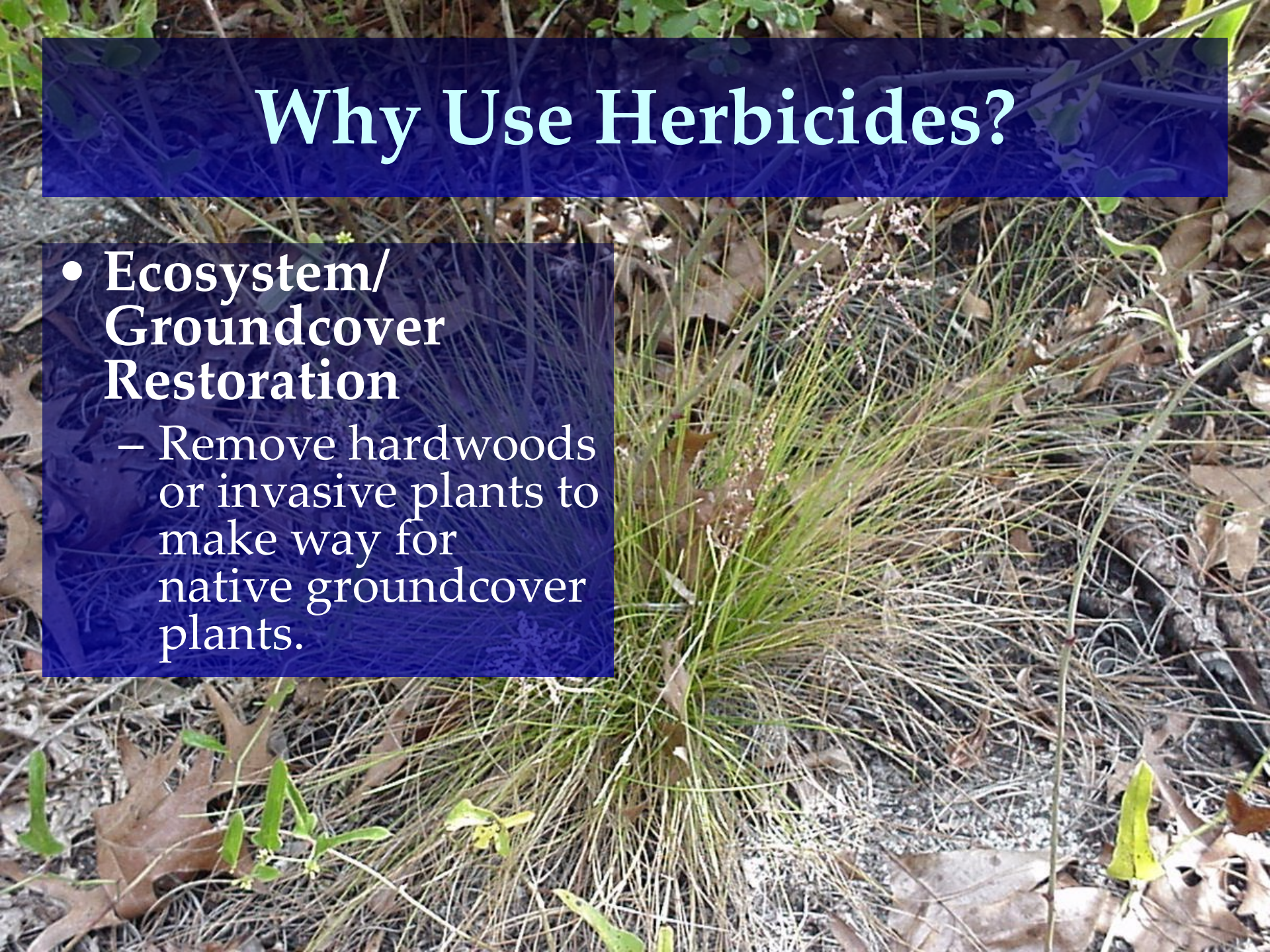
- **Wildlife Objectives**
  - Alter vegetation composition and structure to meet habitat needs.





# Why Use Herbicides?

- **Ecosystem/  
Groundcover  
Restoration**
  - Remove hardwoods or invasive plants to make way for native groundcover plants.





# But isn't mechanical control or fire cheaper? *It depends...*

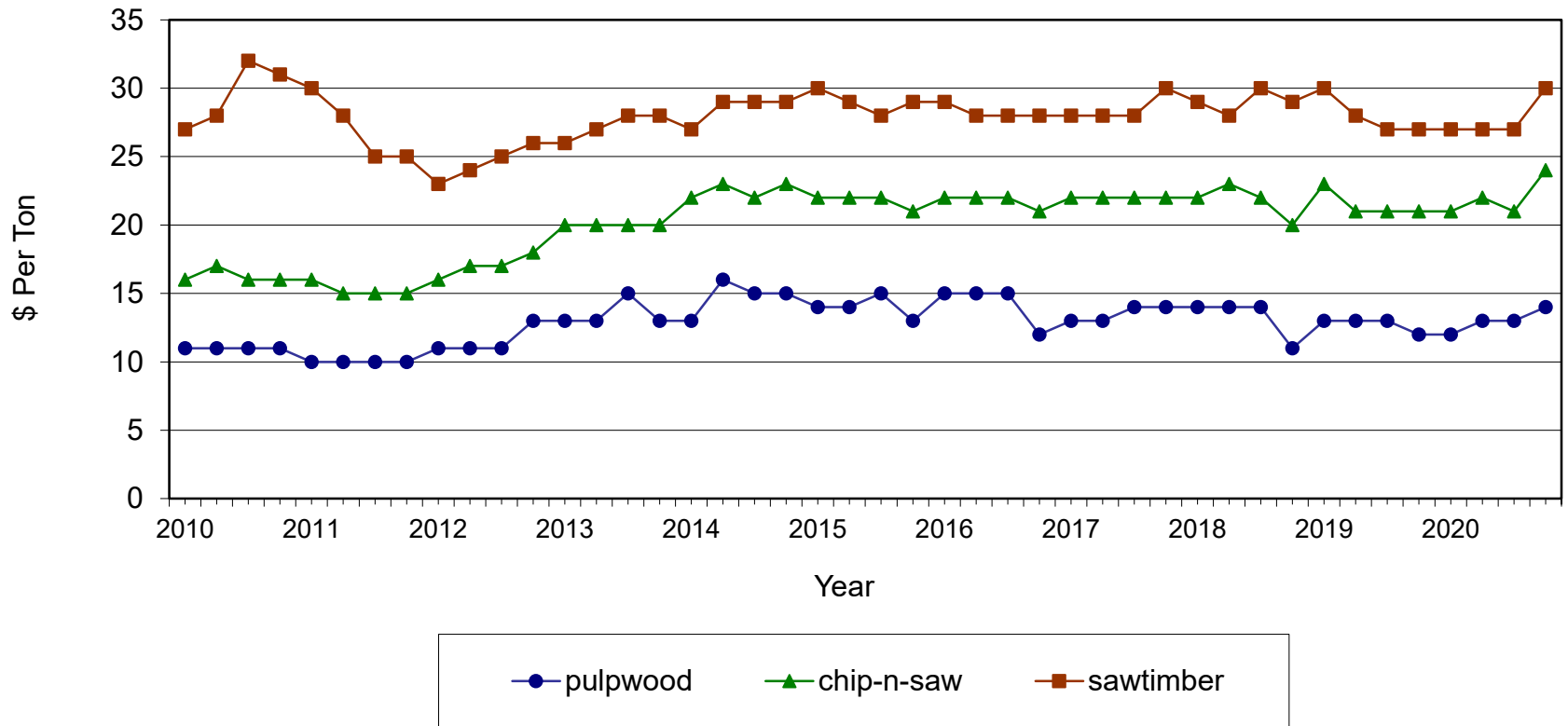
## Herbicides Can:

- bring longer-lasting control of competing vegetation = increased economic return.
- control tough invasive plants.
- retain biomass for soil protection.
- avoid soil compaction.
- be costly.

## Herbicides Cannot:

- reduce slash accumulations after harvest.
- regenerate fire-dependent species.
- be used without caution:
  - application failure
  - drift to non-target crops
  - surface runoff
  - spills

**Average Pine Stumpage Prices for Florida (\$/Ton)**  
**1st Qtr 2010 through 4th Qtr 2020**



Source: Timber Mart-South 4<sup>th</sup> Qtr 2020 Report, released January 2021



# Timber



- Pine trees don't like shade or crowds.





# Timber

- Site Preparation
  - Before planting
- Herbaceous weed control
  - 1<sup>st</sup> growing season
- Seedling Release
  - Age 1+, control woody stems
- Mid-rotation Brush Control
  - Can be combined with thinning or fertilization



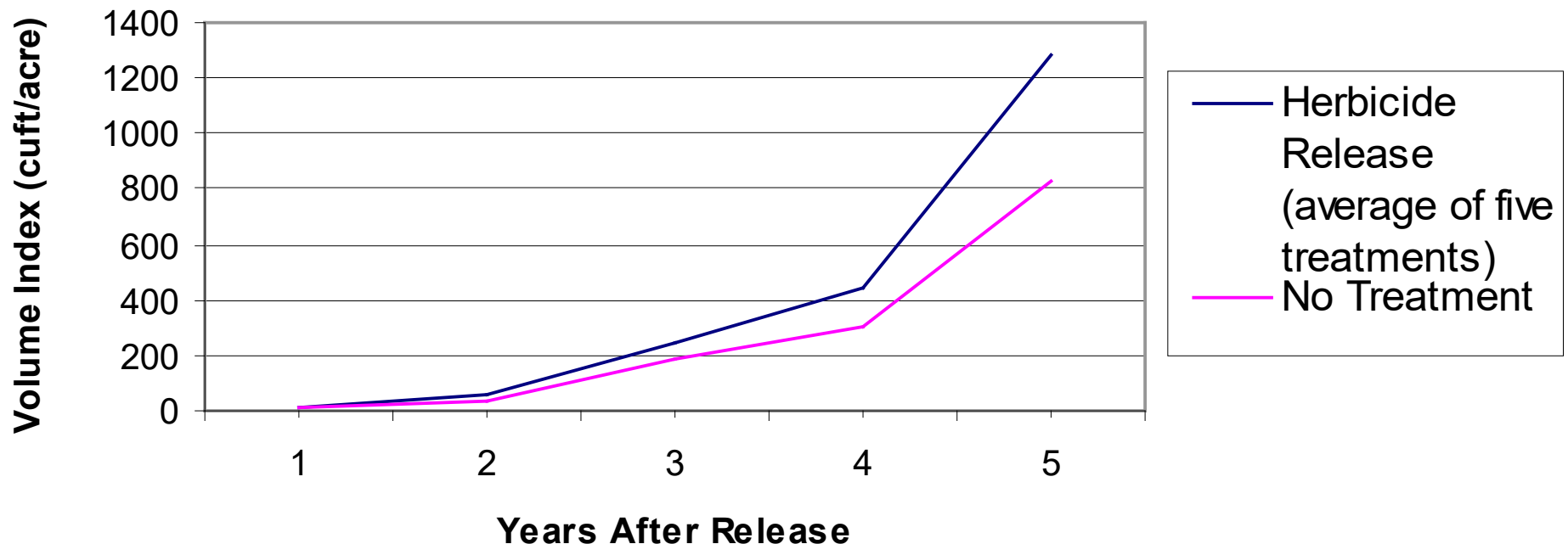
# Site preparation can bring early and long-lasting growth increases

## Central Georgia Loblolly Pine Site Preparation and Release Study, 1994



# Seedling release can also yield early growth response if woody competition is heavy

## Central Georgia Loblolly Pine Site Preparation and Release Study, 1994

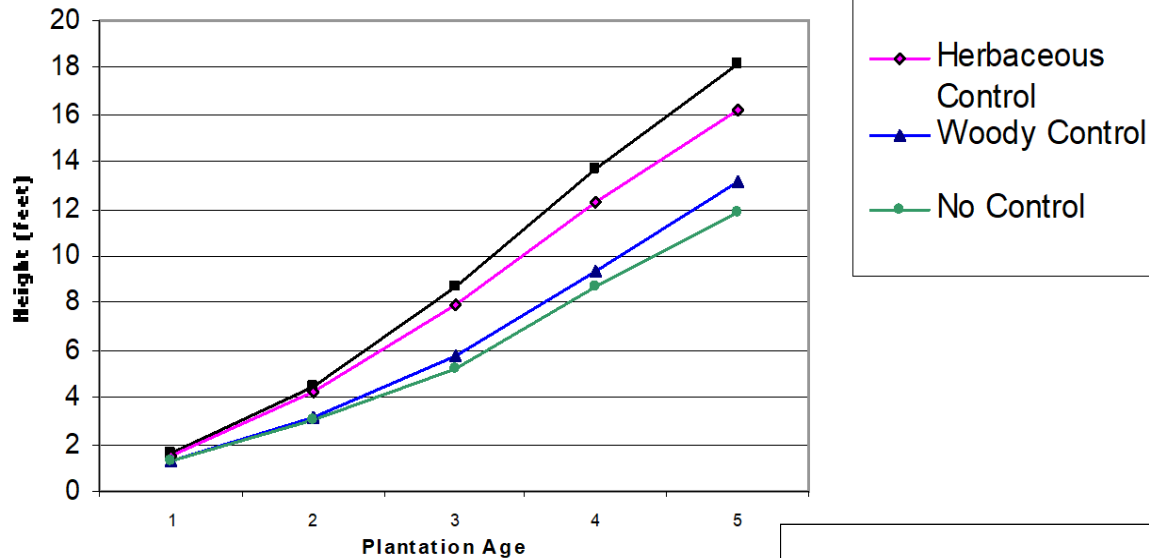




# South-wide COMP Study

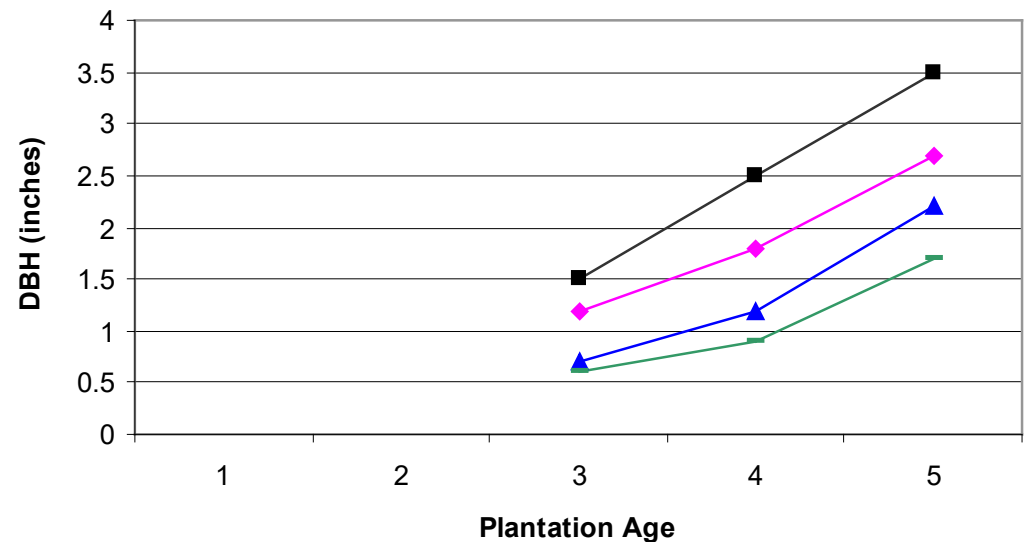
Competition Omission  
Monitoring Project

## Height



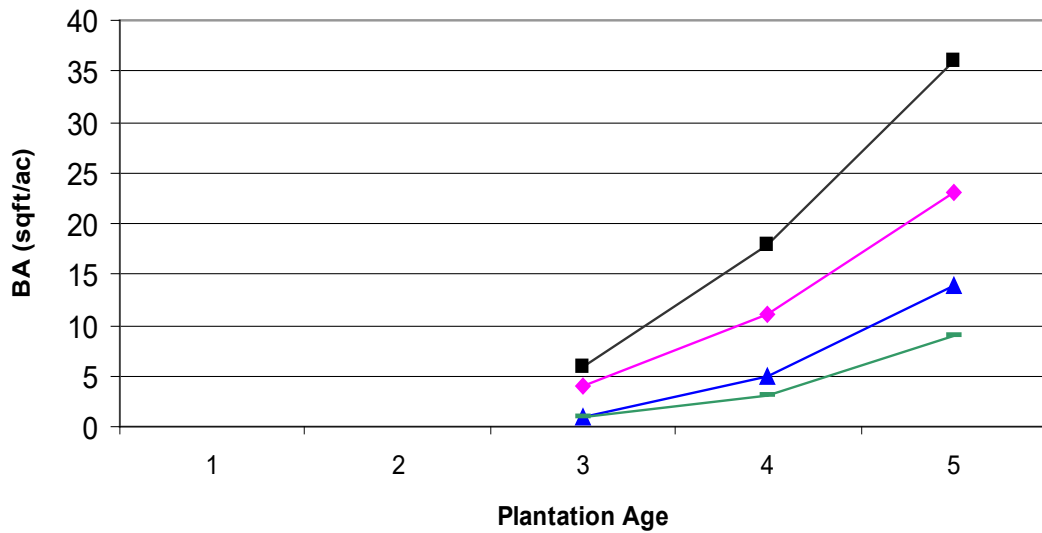
Averages of 14 loblolly  
pine growth study sites  
across Alabama,  
Arkansas, Georgia,  
Mississippi, Tennessee  
and Virginia.

## DBH

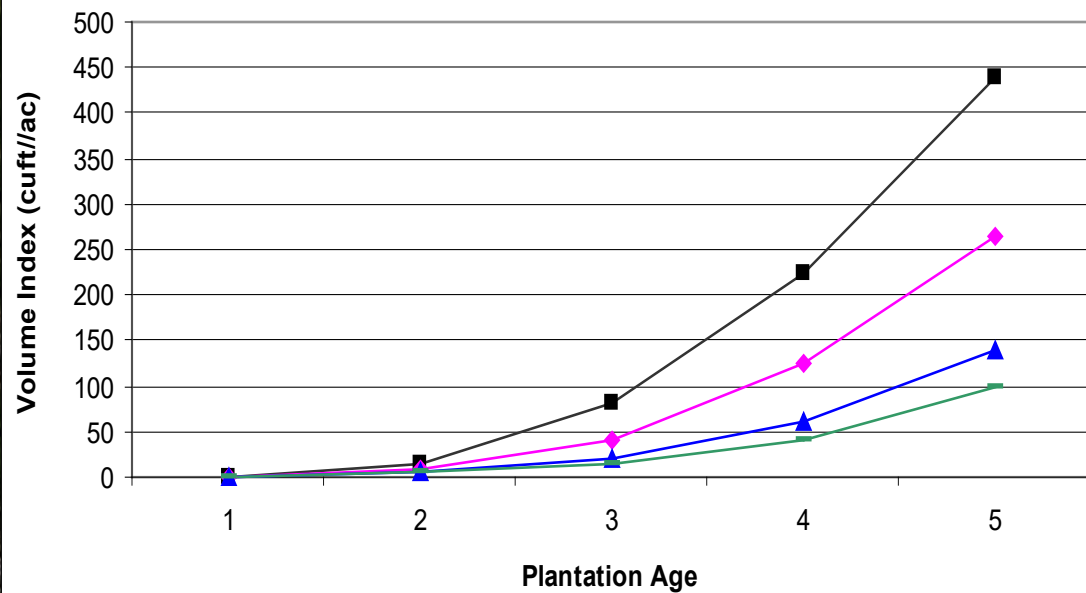


# COMP Study

## Basal Area



## Volume Index





# Average gains of ½ cord / acre / year with early control



Competition control in first 2 years of stand can bring higher returns than release treatments later in rotation.

- Long-term volume increases often pay their way.





# Wildlife Habitat Improvement

- Which species are you managing for?
- What are their habitat requirements?

Photo by Jon Gould



# Herbicides used to favor food plants for deer





Herbicides can release desirable forages such as American beautyberry, ragweed, beggar's lice (desmodium), partridge pea, honeysuckle, blackberry, etc.



UGA2651018



# Control shrubs and hardwoods to favor early succession plants.



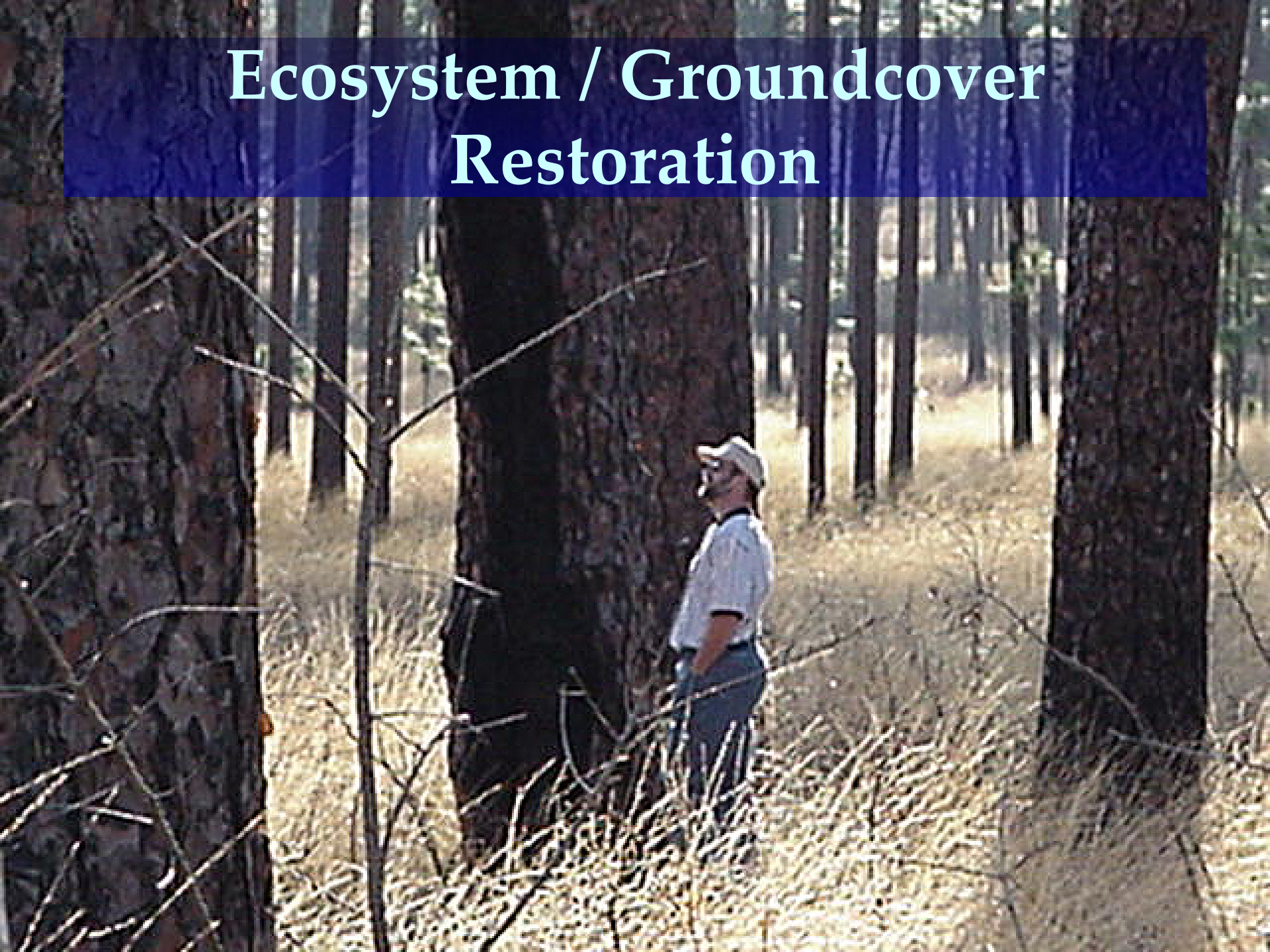
Photos, Leslie Hawkins



**Maintain habitat with fire.**



# Ecosystem / Groundcover Restoration





# Herbicides can be used to select for desirable plants in seed bank.

- Some oaks removed to favor wiregrass and associated groundcover.

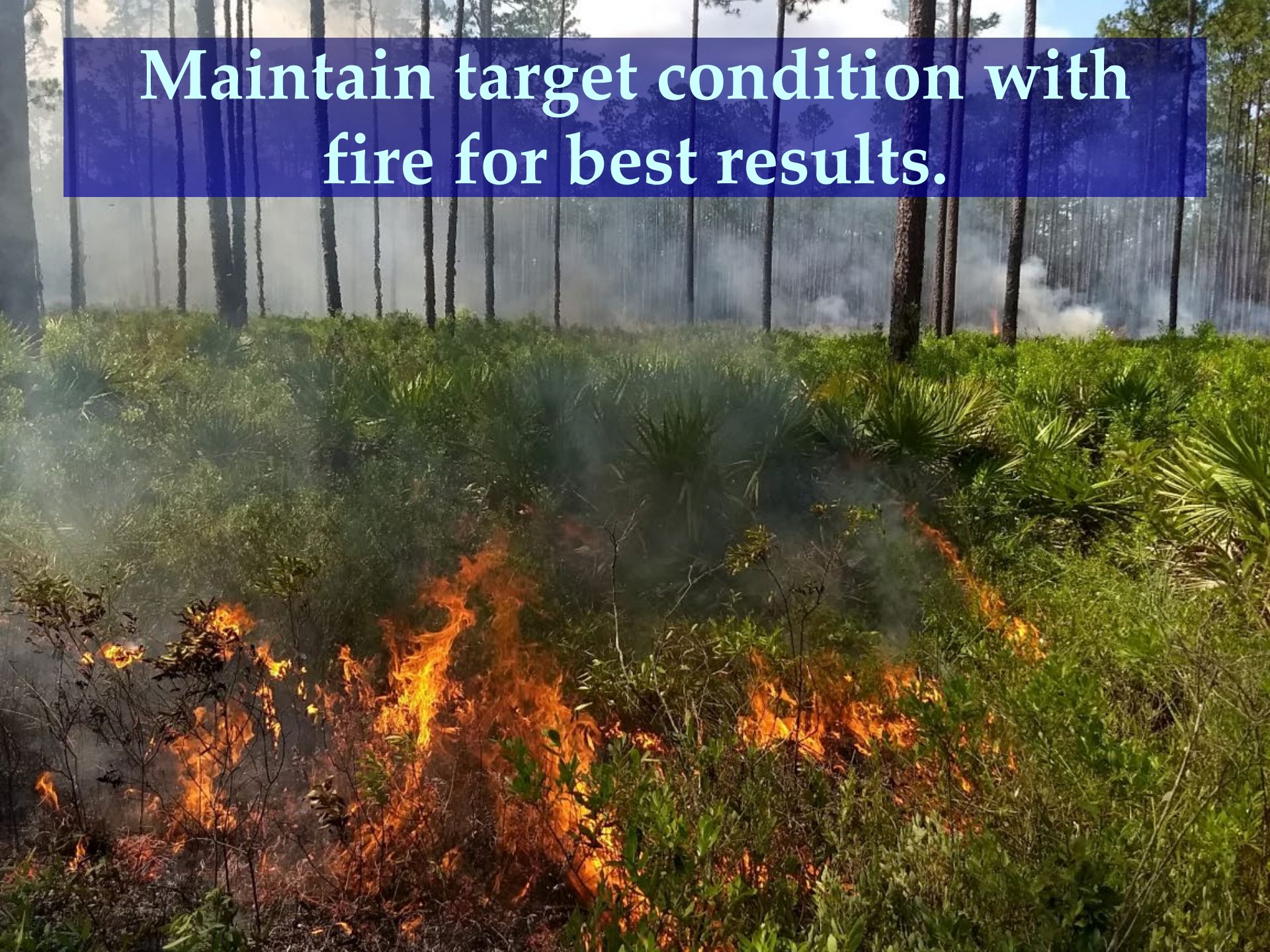


**Invasive species?  
Herbicides will likely need to be used  
to remove them before establishing  
trees or groundcover.**





**Maintain target condition with  
fire for best results.**





# CAUTION!

- Things can go wrong!





# CAUTION!



- Know your objectives.
- Have a plan.
- Always follow the product label.
- Be safe.
- Avoid bad weather.
- GET HELP if you don't know what you're doing.
- Keep good records.



# American Tree Farm System (ATFS) Certification

## 2021-2025 American Tree Farm System Standards of Sustainability

- Standard 4-G for 4.2.2
- Landowners must maintain and provide documentation of pesticide (including herbicide) use on their property. Documentation must include what was applied, when, and where.
- This change can have a direct effect on certification. During the transitional period to the new Standards, if a landowner has not retained this information, they should work with their forester to develop records based on the information they have available (i.e., firsthand knowledge of what/when/why a pesticide was applied).





A photograph of a pine forest with tall trees and a grassy field. The image is used as a background for a presentation slide. The text is overlaid on the image in white font on a dark blue background.

# Thanks! Questions?

- Please use the Q&A function for questions



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# NEXT WEEK

Florida Land Steward Webinar:

## **Advances in Herbicide Technology in Pine Management**

**February 16, 2021, 11:00 am ET**

Dr. Pat Minogue, Associate Professor of Silviculture and Extension Specialist, University of Florida IFAS School of Forest Resources and Conservation

**CFE, CEU approved:**

- 1.0 Cat. 1 SAF CFE and
- 1.0 FDACS CEU in the category of Forest Pest Control, Natural Areas Weed Mgmt, Private Applicator, or ROW Pest Control.

# THANKS PARTNERS AND SUPPORTERS!





**THANKS FOR JOINING US!**

