



Prescribed Fire & Invasives

Dave Moorhead & Johnny Stowe
Center for Invasive Species & Ecosystem Health
The University of Georgia





Photo by Gifford Pinchot 1897 Baldwin Co., AL



UGA1420094



UGA1420156



UGA1420103



UGA1420127



UGA1420105

DEATH RIDES THE FOREST



WHEN
MAN IS
CARELESS



SMOKEY SAYS—

**Care will prevent
9 out of 10 forest fires!**





WHY BURN?

- **Reduce hazardous fuels**
- **Prepare site for regeneration**
- **Improve wildlife habitat**
- **Managing competing vegetation**
- **Control disease**
- **Enhance appearance & access**
- **Manage fire dependent species**
- **Cycle nutrients**





UGA1146021



UGA0908008





UGA1162064





UGA9000031



UGA3046055



UGA4321093



UGA1404072



UGA900022





UGA0908026







UGA1673087





UGA1128064















UGA0016212

Current Occupation in Forests and Forest Openings and Edges in 12 Southern States

Japanese Honeysuckle	10,300,000 Acres
Privets (7 species)	3,200,000 Acres
Tall Fescue	1,000,000 Acres
Japanese Stiltgrass	650,000 Acres
Non-native Roses	600,000 Acres
Tallowtree	450,000 Acres
Invasive Lespedezas	450,000 Acres
Bush Honeysuckles	350,000 Acres
Kudzu	220,000 Acres
Japanese Climbing Fern	182,000 Acres

**18 Million Acres Occupied by 33 Taxa
9 Percent of Forested Acres**

Prescribed Fire in Georgia

- 1.5 million acres prescribed burned annually
- *135,000 acres with invasives*

Prescribed Fire & Invasives Issues

- Impacts on fire behavior
 - Fuels
- Invasive plant response
 - Enhancement
 - Control
- Pathways for introduction

**First step in developing a
burn plan - evaluate &
document stand conditions**













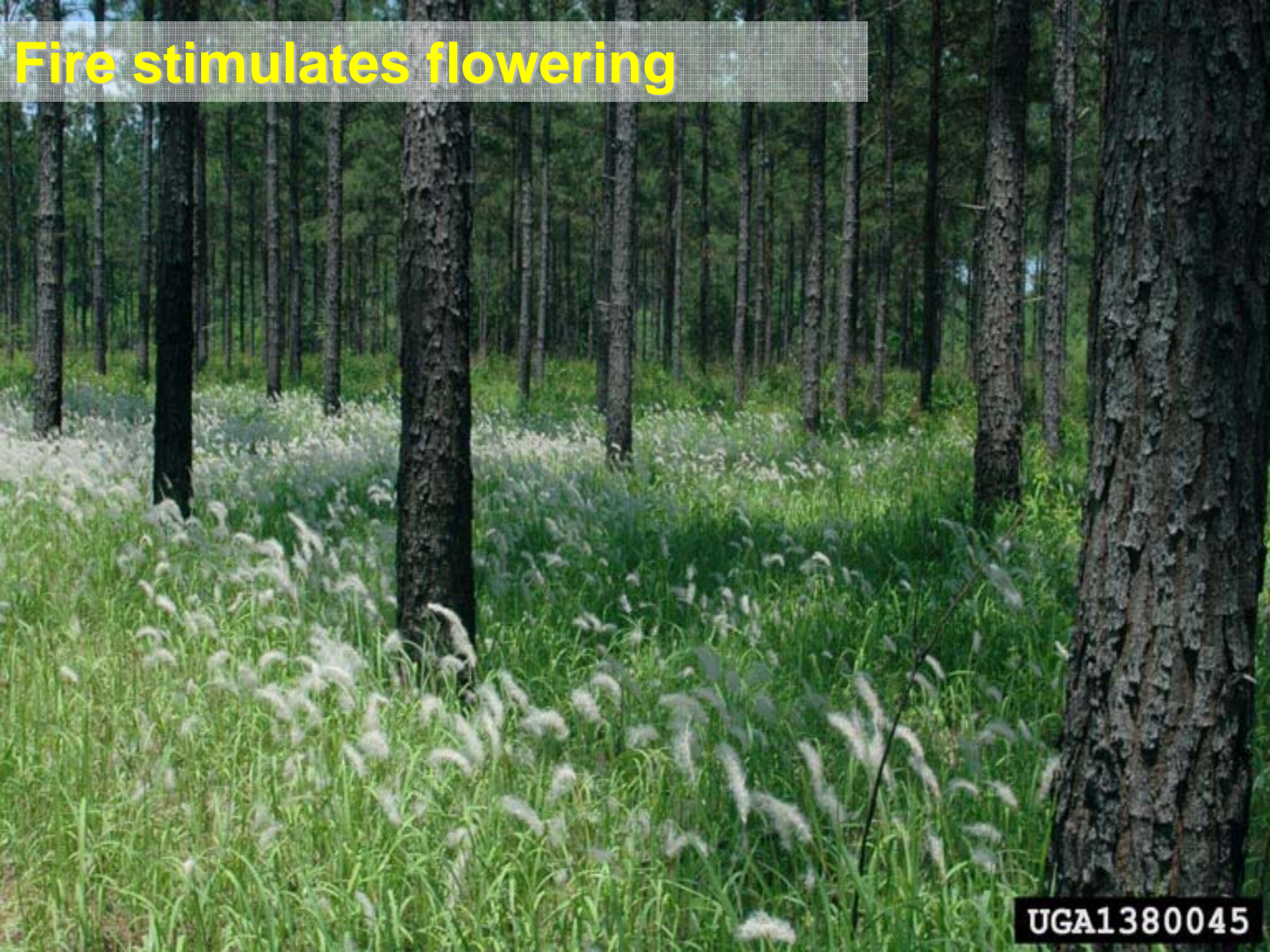
An Extreme Fire Hazard



Smoke Management Problem



Fire stimulates flowering



UGA1380045



UGA0016379

Lespedeza

Disturbance Response

- **Promoted by high light environments**
- **Promoted by soil disturbance**
- **Re-sprouts vigorously**
- **Fire scarification of seeds**
- **Long seed bank (20+ years)**



UGA1146009



Shrubby Lespedeza (Bicolor)

UGA1237026













Japanese Climbing Fern



January 2003



January 2004











UGA2189031



5389543

Spread & Introduction

- **Seedbed preparation**
- **Enhance germination**
- **Reduce competition**
- **Equipment contamination**



UGA0016212





UGA0908020











UGA0014238

A photograph of a field with a metal canister on a tree stump. The canister is a cylindrical metal container with a handle on top, sitting on a wooden stump. The ground is covered in dry leaves and twigs, and there are some green plants growing around it. The background shows more trees and foliage.

ID invasives & map

**Invasive plant responses to management
Post treatment follow-up**

A photograph of a tree trunk in a grassy field. A yellow crime scene tape is wrapped around the trunk. The tape has the words "CRIME SCENE" printed on it in black capital letters. The tree trunk is dark brown and textured. The surrounding area is filled with tall, green grass. The lighting is bright, suggesting a sunny day.

CRIME SCENE