

# The Warnell Continuing Education Program

Daniel B. Warnell School of Forestry and Natural Resources

## Southern Pine Plantation Silviculture

July 13 - 14, 2009

Instructors: Dr. Bruce Borders, Dr. Barry Shiver

Fort Walton, Florida

Four Points by Sheraton Hotel, 1325 Miracle Strip Pkwy.



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SCHOOL OF FORESTRY AND NATURAL RESOURCES  
THE UNIVERSITY OF GEORGIA

### Purpose

The number of silvicultural treatment combinations available to forest managers for Southern pine plantations has increased tremendously in the last 15 years. Managers now routinely make decisions on site preparation, genetic source of seedlings, seedling morphology, planting density, herbaceous weed control, hardwood control, prescribed burning, fertilization, thinning, and more. This course discusses each of these treatments and their effects on pine survival and growth individually and in combination with each other.

### Who Should Attend?

- Foresters who make silvicultural decisions for clients with different objectives and who want to better understand the effect one decision has on other decisions will benefit from this course. The instructors will emphasize the interactions of different silvicultural decisions and their effects on the final results for yields, products, and values.
- Landowners who want to understand why foresters prescribe different silvicultural methods for their lands should attend.
- Realtors involved in, and interested in, the buying and selling of forest products, timber, and timberland are invited to attend.

### Benefits

- Understand the expected responses of different treatments and the interaction with other treatments that can affect expected responses for multiple treatments.
- Learn how different silvicultural decisions throughout stand establishment can lead to stands with very different expected yields with different risk characteristics.
- Learn why the decisions made about planting stock will affect total yields and product distributions throughout the rotation.
- Learn when most Southern pine stands become deficient nutritionally, when stands are most susceptible to competing vegetation, and about the interaction of fertilizer and release treatments with each other and other silvicultural treatments.
- Learn how silvicultural treatments affect thinning timing, intensity, and frequency and the development of different mixes of treatments.

### Instructors

**Bruce E. Borders** and **Barry D. Shiver** have been teaching continuing education short courses across the South since 1989. Barry is now Professor Emeritus of the Warnell School of Forestry and Natural Resources of the University of Georgia. He taught classes in timber management, silviculture, and intensive forest management, plus many others. Bruce is a professor at the Warnell School, where he teaches courses in timber management, inventory, and modeling. Both professors have had active research programs aimed at determining more efficient methods of growing Southern pines and modeling those silvicultural effects. Courses taught by Barry and Bruce are popular! They deliver outstanding technical content in an understandable and enthusiastic manner.

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### Course Itinerary

Monday, July 13, 2009

Time	Event
7:30 a.m.	Registration
8:15	Introduction to the Course
8:30	<b>Silvics of Different Species Affecting Silvicultural Decisions</b>
9:15	<b>Plantation Regeneration</b> <b><i>Mechanical Site Preparation</i></b> <ul style="list-style-type: none"><li>• Primary vs. secondary site preparation</li><li>• Effects on pine survival</li><li>• Effects on pine growth</li></ul>
10:00	Break
10:15	<b><i>Chemical Site Preparation</i></b> <ul style="list-style-type: none"><li>• Timing and efficacy</li><li>• Effects on height development</li><li>• Effects on product volumes</li><li>• Effects on carrying capacity</li></ul>
11:00	<b><i>Planting Stock</i></b> <ul style="list-style-type: none"><li>• Seedling size effects through the rotation</li><li>• Genetic improvement effects on stand development</li><li>• Clonal seedling effects on stand development</li><li>• Interaction with other cultural treatments</li></ul>
Noon	Lunch
1:00 p.m.	<b><i>Herbaceous Weed Control</i></b> <ul style="list-style-type: none"><li>• Timing/Methods/Chemicals</li><li>• Effects on Growth and Survival</li><li>• Effects on Stand Development</li><li>• Interaction with Hardwood Levels</li></ul>
2:15	<b>Post-Establishment Silvicultural Treatments</b> <b><i>Early Woody Release</i></b> <ul style="list-style-type: none"><li>• Early release and the no site prep option as an alternative</li><li>• Response to early release</li></ul>
3:00	Break
3:15	<b><i>Mid-Rotation Release</i></b> <ul style="list-style-type: none"><li>• Response of pine stands to control of understory hardwoods timing, duration, and magnitude of response</li><li>• Prescribed burning to control hardwoods</li></ul>
5:00	<ul style="list-style-type: none"><li>• Adjourn</li></ul>

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### Course Itinerary Continued

Tuesday, July 14, 2009

Time	Event
8:00 a.m.	<b>Fertilization</b> <ul style="list-style-type: none"><li>• Pine nutrition requirements</li><li>• Early fertilization and/or late fertilization</li><li>• Timing and rates to meet objectives: Multiple vs. single fertilization</li><li>• Interaction with hardwood release treatments</li><li>• Fertilization response timing, magnitude, and duration</li></ul>
9:30	<b>Thinning</b> <ul style="list-style-type: none"><li>• Objectives for thinning treatments</li></ul>
10:00	Break
10:15	<b>Thinning (continued)</b> <ul style="list-style-type: none"><li>• Effect of different timing, frequency, and intensity on stand development and resulting products</li><li>• Thinning schedules for wildlife objectives</li><li>• Thinning schedules for longer rotations</li><li>• Thinning and fertilization</li><li>• Thinning and release</li><li>• Thinning and release and fertilization</li></ul>
12:15 p.m.	Adjourn

### Registration Fee

The fee for this course is \$425, which includes lunch, refreshment breaks, and instructional materials. There is a \$60 discount for fees paid and postmarked by June 22, 2009. We accept credit cards and personal or company checks for payment. A preregistration form must be accompanied by a check to guarantee your place in the course.

### Continuing Education Credits

- 11 Continuing Forestry Education (CFE) Hours—Category 1
- 11 Continuing Logger Education Hours (CLE) –  
Environmental

### Register Online at:

[www.conted.warnell.uga.edu/courses/silviculture](http://www.conted.warnell.uga.edu/courses/silviculture)

*Full Attendance is Mandatory to Receive Credit.*

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### Registration Form

Name - please print \_\_\_\_\_

Preferred name for badge \_\_\_\_\_

Birth-date (for credit hour records) \_\_\_\_\_

Business mailing address or  Home address (please check one)

City \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_

County, if Georgia \_\_\_\_\_

Home phone \_\_\_\_\_

Work phone \_\_\_\_\_

Fax \_\_\_\_\_

Email address \_\_\_\_\_  
Education \_\_\_\_\_

Please send me e-mails about other Warnell Continuing programs.

Position \_\_\_\_\_

Organization/employer \_\_\_\_\_

*By registering for this event I agree to comply with all event and lodging cancellation policies.*

#### Southern Pine Plantation Silviculture

July 13 - 14, 2009

Early registration by June 22, 2009:.....\$365.00

Regular Registration:.....\$425.00

Enclosed is a check # \_\_\_\_\_

**(payable to Warnell School of Forestry and Natural Resources)**

**Your registration will not be processed until payment is received.**

#### Cancellations:

Notice must be received by 5:00 p.m. June 29, 2009 to receive a refund.

### Lodging & Location

A block of rooms has been reserved at the Four Points by Sheraton in Fort Walton, Florida for the nights of **July 12 - July 13, 2009**. Please contact the hotel directly to make a lodging reservation or click [here](#) to go register on their site. Please be sure to mention you are attending the *Southern Pine Plantation Silviculture* course in order to receive the discounted \$175 group rate.

#### Four Points by Sheraton

1325 Miracle Strip Pkwy, Highway 98 East

Fort Walton Beach, Florida 32548

1-800-325-3535 or 1-850-243-8116

For a map and directions click [here](#).

### Special Needs

If you require special services or dietary considerations, contact Reena Berwal at 706-542-7602 or e-mail her at [rberwal@warnell.uga.edu](mailto:rberwal@warnell.uga.edu) prior to June 29, 2009.

Mail payment to :

Attn: Reena Berwal

Warnell School of Forestry & Natural Resources

The University of Georgia

Athens, Georgia 30602