

# The Warnell Continuing Education Program

Daniel B. Warnell School of Forestry and Natural Resources

## **Increasing Financial Returns from Southern Pine Plantations through Objective Evaluation of Silvicultural Treatments**

**Barry D. Shiver—CEO Smarter Forestry &**

**David Dickens—UGA Forest Productivity Professor**

**Bulloch County Ag Center – Conference Room**

**151 Langston Chapel Rd, Statesboro, GA**



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SCHOOL OF FORESTRY AND NATURAL RESOURCES  
THE UNIVERSITY OF GEORGIA

### **Purpose**

There are so many silvicultural treatments available today for foresters, managers, and landowners who want to practice intensive forest management that recent Society of American Foresters meeting was entitled “Growing 12 tons/ac/yr”. If we evaluate the cost of treatments required to get an expected response along with the timing of the cash flows we can objectively decide whether the treatment is worth the cost. Budgets, markets, site quality and personal objectives are important determinants of the best mix of treatments for a particular property. This course will evaluate the trade-offs between the costs, economic and otherwise, and the benefits for different mixes of silvicultural treatments with emphasis on quantifying the gains for objective decision making.

### **How One Will Benefit**

Upon completion of this course, a forest landowner or land manager will be able to make effective silvicultural and economical decisions for managing loblolly, longleaf, and slash stands.

### **Who Should Attend?**

Foresters, land managers, forest landowners, and others interested in effectively managing their pine stands with an emphasis on growth, yields, and maximizing economic benefits .

### **Instructors**

Dr. Barry D. Shiver – CEO Smarter Forestry & Professor Emeritus  
David Dickens—Forest Productivity Professor UGA-WSF&NR

### **Directions**

For directions we suggest using [googlemaps.com](http://googlemaps.com). You may also contact David Dickens 912-690-1678 or e-mail him at [ddickens@uga.edu](mailto:ddickens@uga.edu).

### **Special Needs**

For special services or dietary considerations contact David Dickens at 912-690-1678 or e-mail him at [ddickens@uga.edu](mailto:ddickens@uga.edu) prior to 3 August 2018.

### **Hotels in the Area Include:**

Baymont Inn (912-489-7368), Holiday Inn (912-489-4545)  
Days Inn (912-681-7700), Hampton Inn (912-489-8989)  
Quality Inn (912-489-3995)

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### Registration Fee

The fee for this course is \$210, which includes lunch, refreshment breaks, and instructional materials. There is a \$25 discount for fees paid and postmarked by 1 August 2018.

### Continuing Education Credits

- 14 Continuing Forestry Education (CFE) hours - Category 1—approved
- 14 hrs Continuing Logger Education hours - Environment - approved
- 5 hrs cat 23 commercial and 2 hrs private GA Pesticide Applicator credits — approved

*Full Attendance is Mandatory to Receive Credit*

Wednesday, 15 August 2018

Time	Event
8:30am	Registration
8:50	Welcome—Dr. David Dickens—Forest Productivity Prof.
9:00—10:10	<b>Overview and Some Needed General Concepts</b> <ul style="list-style-type: none"> <li>▶ Growth potential of Southern pines</li> <li>▶ We can greatly increase growth over current rates—should we?</li> <li>▶ Time value of money</li> <li>▶ Financial Analysis of Forestry Investments (BLV, NPV, ROI)</li> <li>▶ How we Quantify silvicultural treatment responses and calculate financial returns</li> <li>▶ Growth and Yield Models—uses and limitations</li> </ul>
10:10-10:25	Break
10:25—noon	<b>Making Objective Timberland Mgmt. Decisions</b> <ul style="list-style-type: none"> <li>▶ Types of Treatment Responses</li> <li>▶ Limiting factors for growth</li> <li>▶ Decision Drivers (site quality, treatment cost, response type, markets, investment length)</li> <li>▶ Ways for timberland owners to lose money</li> </ul>
Noon	Lunch
1:00—2:30pm	<b>Regeneration Decisions</b> <ul style="list-style-type: none"> <li>▶ Species choice—properties of slash, loblolly and longleaf and what might push a decision toward one species or another</li> <li>▶ Genetics choice—Open pollinated, control pollinated, varietals, PRS systems, impacts of genetics decisions on investment returns</li> <li>▶ Planting density—effects of height, dbh; concept of limiting density, impact of markets on planting density decisions</li> <li>▶ Site preparation—objectives of chemical &amp; mechanical site prep; impacts on investment returns</li> </ul>
2:30—2:45	Break

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 151 Langston Chapel Rd, Statesboro, GA 15-16 August 2018



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Day -Time	Event
<b>Wednesday</b> 15 August  2:45—5:00pm	<b>Regeneration Decisions (continued)</b> <ul style="list-style-type: none"> <li>▶ Herbaceous Weed Control (HWC) – potential impacts of HWC including timing, magnitude and duration of response</li> <li>▶ How to achieve potential—short and longer term results of trials in loblolly and longleaf—Dr. Dickens</li> <li>▶ Interaction of HWC and hardwood levels—impact on investment returns</li> </ul>
5:00	<b>Adjourn</b>
<b>Thursday</b> 16 August 8:00 a.m.	<b>Established Stand Silvicultural Treatments—Woody Release</b> <ul style="list-style-type: none"> <li>▶ Woody Release age 1 to late teens; type, length and magnitude of response; impacts on dbh distribution; control of upland and waxy leaf species</li> <li>▶ Concept of marginal rate of return and typical rates of return for woody release; trends in woody release costs and impacts on investment returns</li> <li>▶ Additional benefits of woody release beyond growth (fire danger, harvesting costs, inventory costs, expensing costs rather than capitalizing, quicker turnaround after clearcut)</li> </ul>
10:00	Break
10:15	<b>Established Stand Silvicultural Treatments—Fertilization</b> <ul style="list-style-type: none"> <li>▶ P deficient sites; threshold levels and sampling for nutrient levels; ratios needed</li> <li>▶ Concept of leaf area; efficient ways to fertilize; type, duration, and magnitude of response; N alone vs N+P fertilization</li> <li>▶ Piedmont vs coastal plain native nutrient levels; impacts on dbh distribution; trends in fertilization costs and impacts on investment returns</li> <li>▶ Release and fertilization combined</li> </ul>
12:00-1:00pm	lunch
1:00	<b>Established Stand Silvicultural Treatments -Thinning</b> <ul style="list-style-type: none"> <li>▶ Reasons to thin (or not to thin) - the importance of markets</li> <li>▶ Timing, frequency, intensity of thins and which trees to thin</li> <li>▶ Importance of inventory data and what detail is needed; concept of TQI; difference in investment returns for different thinning strategies; thinning loblolly vs slash vs pine</li> <li>▶ When thinning is not optimal</li> </ul>
2:30—2:45	Break
2:45 — 5:00	<b>Other Opportunities and Considerations</b> <ul style="list-style-type: none"> <li>▶ Pine straw raking- opportunities, realistic sites, impacts on nutrients; impact of straw raking on species choice and thinning decisions</li> <li>▶ Wood Quality as impacted by silvicultural treatments; what are realistic tons/acre goals; using operability and inventory information to maximize stumpage prices (and returns)</li> <li>▶ Course summary and questions</li> </ul>
5:00	Adjourn

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Register online at  
<http://conted.warnell.uga.edu>

### Registration by Regular Mail

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

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

Business mailing address or  Home address (please check one)

\_\_\_\_\_  
City State Zip County, if Georgia

\_\_\_\_\_  
Home phone Work phone Fax

\_\_\_\_\_  
Email address  Please send me e-mails about other Warnell Continuing  
Education programs.

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

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

### **Increasing Financial Returns from Southern Pine Plantations through Objective Evaluation of Silvicultural Treatments**

15-16 August 2018

Early registration through 1 August 2018: .....\$185.00

Regular registration:.....\$210.00

Enclosed is a check #\_\_\_\_ (payable to Warnell School of Forestry and  
Natural Resources). Fee must be received to process payment.

**Cancellations:** You must notify Ingvar Elle at 706-583-0566  
(ielle@warnell.uga.edu) by 5:00 p.m. 1 August 2018 if you wish to  
cancel and to receive a refund.

Mail payment to: Attn: Anuj Sinha

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Athens, Georgia 30602-2152