

NC STATE UNIVERSITY  
College of Natural Resources  
**Forestry Educational Outreach Program**  
Campus Box 8003  
Raleigh, NC 27695-8003

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Raleigh, NC  
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**Upcoming FEOP Workshops**

- **May 10** - Protecting and Enhancing the Productivity of Forest Soils, Morganton, NC
- **May 12** - Tourism Income Opportunities for Landowners, Various locations
- **June 7-8** - **Accurate Forest Inventory, Raleigh, NC**
- **June 9** - Managing Access to Land, Various locations
- **June 29** - Forest Certification Assessor Training, Raleigh, NC
- **June 30** - Group Certification for Forest Managers, Raleigh, NC

# Accurate Forest Inventory

*Basics of practical and efficient timber cruising*

**A Great Review for the NC Registered Foresters' Exam!  
Valuable Information for Appraisers!**



**June 7-8, 2004**  
**McKimmon Center**  
**North Carolina State University**  
**Raleigh, NC**

*Sponsored by*  
Forestry Educational Outreach Program  
NC State University Department of Forestry

## Accurate Forest Inventory



### About the Workshop

This workshop will give timber cruisers, forestland managers, and appraisers the information they need to design accurate and efficient forest inventories. The instructor will explain the major methods of inventory cruising, including prism, fixed plots, and strips. Participants will learn to develop statistically reliable inventories and to make informed conclusions based on cruise results. **The field exercise will provide opportunity for hands-on comparison of the various inventory methods.** Emphasis will be placed on practical considerations with numerous applications and examples. **This course will also be a comprehensive review for those planning to take the North Carolina registered foresters' exam.** Registration includes a comprehensive notebook with material covered in the course. Familiarity with forestry terms and concepts is assumed.

### About the Instructor

*Steve Daniels* is a forestry consultant in North Carolina. In addition to traditional forest management, Steve specializes in large inventories and mensuration projects, including growth and yield modeling, volume table construction, and photogrammetry. Steve has a B.S. and M.F. in forest management from NC State University, where he has taught mensuration since 1993.

### Continuing Education Credits

This course has been approved for 13.5 Continuing Forestry Education credits from the Society of American Foresters and 16 CE hours from the North Carolina Appraisal Board.

## Registration and Fees

The registration fee is \$225. This includes two full days of instruction, course materials, lunches, refreshment breaks, and field trip transportation.

**Registration deadline is June 1st.** In order to enhance the experience of all participants, enrollment in the workshop is limited to the first 36 registrants.

*Cancellations made by June 1st will receive a refund less a \$25 service charge.*

## Equipment

Field equipment will be provided; however, attendees are encouraged to bring their own equipment if possible (prism, D-tape, compass). All attendees should bring a calculator and appropriate field attire, including rain gear.

## Workshop Location and Lodging

The workshop will be held at the McKimmon Center on the North Carolina State University campus in Raleigh, NC. A map indicating the location of the workshop and parking areas will be included with your registration confirmation letter. *Lodging is not included in the registration fee.* Hotels convenient to NCSU campus include the Ramada Inn-Blue Ridge 919-832-4100, and the Holiday Inn-Brownstone 919-828-0811.

**For more information** on this workshop or other FEOP workshops, visit our website at [www.ncsu.edu/feop](http://www.ncsu.edu/feop) or contact Becky Townsend at 919-515-9563 (phone), 919-515-6883 (fax), or [becky\\_townsend@ncsu.edu](mailto:becky_townsend@ncsu.edu)



# Accurate Forest Inventory Course Agenda

### Day 1 (Monday, June 7, 2004)

- 8:00 a.m. **Registration**  
8:30 a.m. **Introduction: Workshop Overview**  
8:45 a.m. **Inventory Statistics**  
    Why cover statistics?  
    Statistical terms and calculations  
    Number of measurements required  
10:45 a.m. **Sample Designs**  
    Random vs. Systematic  
    Stratification benefits  
    Pre-cruise considerations  
    Volume and the impact of form class  
    Merchantability standards  
    Sensitivity of tables and equations to different types of errors  
12:15 p.m. **Lunch**  
1:00 p.m. **Fixed Plots**  
    Theory  
    Choice of plot size  
    From plots to estimates  
    Stand and stock tables  
3:00 p.m. **Variable Plots**  
    Theory  
    Advantages  
    Instruments  
    Choice of basal area factor  
    From plots to estimates  
    Stand and stock tables

### **Preparations for Day 2**

5:00 p.m. **Adjourn**



### Day 2 (Tuesday, June 8, 2004)

- 8:00 a.m. **Strip Cruising**  
    Theory  
    Advantages & disadvantages  
    Stand and stock tables  
    Modification  
8:30 a.m. **The Cruise Report**  
    Interpreting the results  
    Answering questions with the report  
    Assessing the cruise and the report  
10:00 a.m. **Field Exercise: Data Collection**  
12:00 p.m. **Lunch**  
12:45 p.m. **Cruise Calculations with Field Data**  
2:45 p.m. **Interpreting Our Results**  
    Answering questions with our data  
    Assessing our performance  
    Conclusions  
3:30 p.m. **Bidding on the Results**  
    Assessing the impact of variability on sale bids  
    Impact on appraisals  
    Impact on management planning  
4:15 p.m. **Inventory Designs**  
    Efficiency - method, plot size/BAF, spacing, trees/plot to target, variables to measure  
    Current product vs. potential product class  
    Audited cruises  
    Determining the optimum size and spacing  
4:45 p.m. **Final questions and course evaluation**  
5:00 p.m. **Adjourn**

*Note: The workshop will take place, rain or shine. Please dress accordingly.*

## Registration Form Accurate Forest Inventory Registration Deadline is June 1, 2004.

Name \_\_\_\_\_  
Organization \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Daytime Phone \_\_\_\_\_  
Fax \_\_\_\_\_  
E-Mail \_\_\_\_\_  
Vegetarian Meal Required? \_\_\_\_\_

### Method of Payment

**Registration Fee: \$225**

\_\_\_\_\_ Check (*make payable to NC State University*)

\_\_\_\_\_ Credit Card (*MasterCard or Visa ONLY*)

Card #: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Expiration Date: \_\_\_\_\_

Name of Cardholder: \_\_\_\_\_

Address of Cardholder: \_\_\_\_\_

*I agree to allow NC State University to charge this credit card for the workshop registration.*

Cardholder Signature: \_\_\_\_\_

**Send payment to FEOP, NC State University, Campus Box 8003, Raleigh, NC 27695; or FAX: 919-515-6883**

FOR OFFICE USE

date rec'd \_\_\_\_\_ amt. \_\_\_\_\_ ck# \_\_\_\_\_  
V/MC chgd \_\_\_\_\_ conf. sent \_\_\_\_\_ dep. date \_\_\_\_\_