



FOREST MANAGEMENT WORKSHOPS
for
Inventory and Planning Professionals
Forest Growth & Silviculture Workshop

This workshop will emphasize Forest Growth, Silviculture & Yield modeling. Each participant will come away with a state-of-the-art understanding of silvicultural regime management. Emphasis includes importance of growth model integration with inventory and planning methods, silvicultural regimes, site productivity, regeneration, operating costs, revenue and discounted cash flows. Detailed examples will identify impacts of alternative silvicultural regimes and management strategies. If you own, manage or are concerned about inventory, GIS linkages, silviculture and harvest planning for a forested land base then this workshop is for you. **See Publications Note at bottom of second page.**

The objective of this workshop is to understand and apply a stand-based growth and silviculture modeling approach for all forest silviculture and planning analyses. This workshop is for all Inventory, GIS, Silviculture and Planning Foresters. Each two participants will be provided a computer, forest database, software and documentation with which we will develop each step and component over the three-day workshop. The workshops are designed for 24 participants with two people working as a team on each of 12 computers. The combined workshop documentation and inventory database developed during this workshop will provide each participant with the tools and insight to carry out similar analyses upon returning to your own office.

Day/Time	Forest Growth/Yield and Silviculture Modeling Workshop (Part I) CFE: 21 hours 1-CF
Day1 10:00am 12:00 pm	Definitions and Purpose <ul style="list-style-type: none"> • A History of Forest Growth and Yield in the Northwest (*Note) • Volume Table evolution to Growth Models • Critical “Linkages & Integration” with Inventory & Planning Systems • Transferring G&Y Research to Operations – Benefits & Impacts
Day1 1:00pm 2:00pm	Site Productivity – What is it and How to measure it? <ul style="list-style-type: none"> • Definition of Physical Site Index versus Tree Site Index • Impacts of Silviculture on Site Classification (Expressed Site Index) • 10m Site and Shape Concepts and Methods (*Note) • Soil / Site Models and Extrapolating Forest-Wide Productivity (*Note)
Day1 2:15pm 3:15pm	Quantification of Tree Taper & Volume <ul style="list-style-type: none"> • Taper Functions and Taper Equations (*Note) • Localizing Taper Access tables to your Forest • Specifying Merchantable Standards – Weight, Cubic, Board & Carbon
Day1 3:30pm 4:30pm	Valuation and Cost Structures <ul style="list-style-type: none"> • Log Valuation – Species, Dimension, Position, Defect & Product • Operating Costs – Annual, Regeneration, Silviculture & Harvesting • Cash Flows – Net Operating Income, Discounted Net Revenue

Day/Time	Forest Growth/Yield and Silviculture Modeling Workshop (Part II) CFE: 21 hours 1-CF
Day2 8:00am 9:30am	Critical Factors for Growth Model Applications <ul style="list-style-type: none"> • Tracking Dimensional Change instead of Age – Why? • Inventory Stand Resolution – Species and Distribution – Size & Spatial • Growth Model Resolution – Individual Tree or Stand Basis (outputs) • Early Stand Development – Regeneration & Non-tree Vegetation • Late Stand Development – Ingrowth, Growth & Mortality Dynamics
Day2 9:45am 12:00 pm	Modeling Early Silvicultural Treatments <ul style="list-style-type: none"> • Small Tree Growth Dynamics and Classification (CASH Card) (*Note) • Defining Regimes versus Treatment Sequences • Site Preparation, Brush Control & Pest Control Impacts • Timing, Intensity and Effects of Fertilizer Applications • Fill Planting and Inter-Planting Methods, Impacts and Costs
Day2 1:00am 2:30 pm	Modeling Mature Silvicultural Treatments <ul style="list-style-type: none"> • Importance and Methods of Timing Treatments • Thinning Alternatives – Type, Intensity, Residual Levels • Thinning Methods – Below, Diameter range, Above, Spatial, Group • Pruning Alternatives – Timing and Targets • Fertilization Alternatives – Timing, Intensity and Impacts
Day2 3:00am 4:30 pm	Modeling Major Silvicultural Systems <ul style="list-style-type: none"> • Plantation Regimes for Single or Mixed Species • Seed-Tree Regimes with Natural or Planted Regeneration • Shelterwood Regimes and Regeneration Silviculture • Selection Regimes – Frequency and Intensity of Entrees
Day3 8:00am 3:00 pm	Hands-on exercises – Selected Silvicultural Regimes – What Works for You? <ul style="list-style-type: none"> • Develop Case Study Regimes to Optimize Volume, Value & Benefits • Rank Alternative Silvicultural Investment Levels – Natural & Planted • Evaluate Cash Flow and Residual Habitat by Silvicultural Strategy • Rank Alternative Silviculture for Wood, Value, Habitat and Carbon

Lodging: You are responsible for your own accommodations.

Cancellations: Workshops will be cancelled if fewer than 7 participants sign up. Refunds are non-refundable if cancellations are made less than 10 business days before the first day of the workshop.

Instructors: James D. Arney, Ph.D., Forest Biometrics Research Institute, Corvallis, Oregon
 Brian L. Kleinhenz, Forest Biometrics Research Institute, Corvallis, Oregon
 Kelsey S. Milner, Ph.D., Forest Biometrics Research Institute, Corvallis, Oregon
 David K. Walters, Ph.D., Roseburg Resources, Roseburg, Oregon

***Note:** FBRI has produced new research reports which will be distributed in this Workshop

- 1) History of Forest Biometrics in the West
- 2) Estimating Forest Productivity: The 10m Site Index Method
- 3) Estimating Forest Productivity Using Soil/Site Models
- 4) Estimating Silvicultural Gains Using a Height-Intercept Approach
- 5) Taper Class Profiles by Species & Region

Registration For Forest Growth & Silviculture Workshop

Please refer to our website for workshop dates and locations:

http://www.forestbiometrics.com/workshop_info.html

Forest Biometrics Research Institute Members: The registration fee is U.S. \$550.00 if pre-registered; or U.S. \$575.00 if payment is later than 10 days prior to the 3-day Workshop.

All Others: The registration fee is U.S. \$850.00 if pre-registered; or U.S. \$875.00 if payment is later than 10 days prior to the 3-day Workshop. See our Web Page for explanation of variable costs.

Please make all checks payable to Forest Biometrics Research Institute. Registration includes use of Workshop computers, sample databases, Forest Biometrics Textbook, two lunches and all coffee breaks.

- * One Form per Registrant per Workshop. Please copy as needed.
- * All Payments must be in U.S. Funds. No refund, if canceled within seven (7) days of Workshop.
- * Each Class is limited to 24 participants - first come, first serve and paid in full prior to Workshop.

Yes, I will attend the 3-day workshop. Please enroll me. Enclosed is my application.

Name _____ Phone: _____

Affiliation _____ E-Mail: _____

Address _____

City _____, Province/State _____, Postal Code/Zip _____

Check enclosed _____; Purchase Order No. _____

Questions? Call (541) 754-1200 * Fax (541) 738-0500 * E-Mail: JoAnn@forestbiometrics.com

Return reservation and check to:

Forest Biometrics Research Institute

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You may also register on-line using our web site at www.forestbiometrics.com and going to the Workshop page. Full details are available there.