



2017 Forest Vegetation Simulator (FVS) e-Conference Program

Presenter Name in Bold

All presentation times listed in the program are US Mountain standard time zone.

Tuesday, February 28, 2017

8:00 AM Welcome to Day 1, Morning Session

Conference Host

8:15 AM State of the Forest Vegetation Simulator Address

Michael Van Dyck

FVS Development: Modernization

8:30 AM User Needs Assessment for the Modernization of the Forest
Vegetation Simulator

Wade Tinkham, Molly Roske and Linda Nagel

9:00 AM Introducing FVSONline as a Replacement to Suppose

Nicholas Crookston

FVS Development: New Variants

9:30 AM Development of the ORGANON based FVS Variants, FVSop and FVSoc

Erin Smith-Mateja

10:00 AM BREAK

Keynote Address

10:30 AM A National Perspective of the role of Science Based Tools in Forest
Management

Leslie Weldon

USDA Forest Service Deputy Chief, National Forest System

FVS Development: New Variants

11:15 AM The Acadian Variant of the Forest Vegetation Simulator: continued
development and evaluation

Aaron Weiskittel, John Kershaw, Nick Crookston and Chris Hennigar



11:45 AM Development and Evaluation of an Individual Tree Growth and Yield Model for the Adirondacks Region of New York
*Aaron Weiskittel, **Christian Kuehne**, John Paul McTague and Mike Oppenheimer*

12:15 PM LUNCH

1:15 PM Welcome to Day 1, Afternoon Session
Conference Host

1:30 PM Modeling Future Dynamics of European Beech Forests for Ground Beetle Conservation
Giorgio Vacchiano, Roberta Berretti, Elena Regazzoni, Flavio Ruffinatto and Matteo Negro

FVS Development: Extensions, Post Processors and Links to Other Models

2:00 PM Climate and Soils Driven Growth and Yield for Eastern Variants of the Forest Vegetation Simulator
*Huiquan Jiang and **Philip Radtke***

2:30 PM The FVS-WRENSS Water Yield Post-Processor: validation of snow-dominated procedures
Robert N. Havis

3:00 PM BREAK

3:30 PM Linking FVS and TELSA via the API
Sarah Beukema and Donald Robinson

4:00 PM Linking FVS to 3D Fire Models: introduction to STANDFIRE, a platform for stand scale fuel treatment analysis
Russell Parsons

4:30 PM Bioregional Inventory Originated Simulation Under Management: a framework for evaluating forest restoration alternatives and their outcomes, over time, to inform monitoring at the assessment phase, and beyond
Jeremy Fried, Terrie Jain, Sara Loreno, Robert Keefe and Conor Bell

5:00 PM End of Day 1



Wednesday, March 1, 2017

8:00 AM Welcome to Day 2, Morning Session

Conference Host

FVS Computational Techniques

8:15 AM An Evaluation of Predicted Site Index in Large-Tree Diameter Growth Modeling of Selected Tree Species in the Great Lakes Region

Ram K. Deo, Robert E. Froese and Matt E. Russell

8:45 AM Adjusting Canopy Cover Estimates for Non-Random Spatial Distributions in FVS

Michael Shettles and Erin Smith-Mateja

9:15 AM Live Tree Carbon Stock Equivalence of Fire and Fuels Extension and FIA Inventory Approaches

Coeli M. Hoover and James E. Smith

9:45 AM Theoretical Foundation of Stage's Formulation of Stand Density Index

H. Bryan Lu, Fred Martin and Ralph Johnson

10:15 AM BREAK

FVS Regeneration Modeling

10:45 AM Modeling the Impact of Overstory Density on the Regeneration Dynamics of Missouri Ozark Forests

Lance A. Vickers, David R. Larsen, John M. Kabrick, Daniel C. Dey and Benjamin O. Knapp

11:15 AM Development and Assessment of Regeneration Imputation Models for National Forests in Oregon and Washington

Leah C. Rathbun, Andrew J. Sánchez Meador and Karin M. Kralicek

FVS Evaluation: Base Model

11:45 AM Performance of the Northeast (and Acadian) Variants of FVS in Relation to an Extensive Chronosequence and Remeasurement dataset for Eastern White Pine (*Pinus strobus*, L.) in Central Maine

David Ray and Robert Seymour

12:15 PM LUNCH



- 12:15 PM POSTER SESSION: Using Forest Vegetation Simulator (FVS) to Calculate Cover Type Transition Probabilities of Deferred/Altered Stands within the Border Lakes Subsection
Curtis L. Vanderschaaf
- 1:15 PM Welcome to Day 2, Afternoon Session
Conference Host
- 1:30 AM Evaluating FVS Diameter Increment in Disturbed Forests Across the US Lake States
Mack Glasby and Matt Russell
- 2:00 PM Evaluation of the FVScr Diameter Growth Model and Potential Modifications in Structurally-Complex Ponderosa Pine Forests
Yvette L. Dickinson, Michael A. Battaglia and Lance A. Asherin
- FVS Evaluation: Fire and Fuels Extension
- 2:30 PM Evaluation of the Fire and Fuels Extension (FFE) of the Forest Vegetation Simulator (FVS) within the Missouri Ozarks
Casey R. Ghilardi, Benjamin O. Knapp, Hong S. He, David R Larsen and John M Kabrick
- 3:00 PM BREAK
- 3:30 PM Validation of the Southern Variant Fire-Related Mortality Models for Prominent Upland Hardwood Species in the Central Hardwood Region
Tara L. Keyser, Virginia McDaniel, Robert Klein, Dan Drees, Jesse Burton and Melisa Forder
- 4:00 PM Estimating Canopy Bulk Density and Canopy Base Height for Conifer Stands in the Interior Western US using the Forest Vegetation Simulator Fire and Fuels Extension
Seth Ex, Frederick (Skip) Smith, Tara Keyser and Stephanie Rebain
- 4:30 PM Sensitivity of Crown Fire Modeling to Inventory Parameter Dubbing in FVS
Wade Tinkham, Chad Hoffman, Seth Ex, Michael Battaglia and Alistair Smith
- 5:00 PM End of Day 2



Thursday, March 2, 2017

8:00 AM Welcome to Day 3, Morning Session

Conference Host

FVS Application: Inventory Processing

8:15 AM Use of FVS Simulations to Update Vegetation and Fuel Layers in the LANDFIRE Program

Donald Long and Jim Napoli

8:45 AM Using FVS as Part of a Regional Inventory Compilation Process for Data Stored in FSVeg

Renate Bush

FVS Application: Fire, Carbon and Climate

9:15 AM Managing Carbon on Federal Public Lands: opportunities and challenges in southwestern Colorado

Katharine C. Kelsey, Lisa Dilling, Daniel P. Fernandez, Yin D. Huang, Jana B. Milford and Jason C. Neff

9:45 AM Using Climate-FVS to Inform Management Decisions: four case studies from the American Southwest

Andrew Sánchez Meador, Alicia Azpeleta Tarancón, Michael Todd Stoddard and Sushil Nepal

10:15 AM BREAK

10:45 AM Modeling the Long Term Impact of Large Wildfires and Forest Restoration Treatments on Western US National Forests

Alan Ager, Robert Seli, Rachel Houtman and Ana Barros

FVS Projects: Forest Health

11:15 AM Use of the Forest Vegetation Simulator (FVS) and the Southern Pine Beetle (SPB) Event Monitor to Identify Silvicultural Treatments for the Reduction of SPB Hazard and Enhancement of Restoration on the North Carolina Piedmont

Jason A. Rodrigue, Chad E. Keyser and John T. Nowak



11:45 AM Estimating potential changes to forest structure resulting from emerald ash borer

Andrew McMahan, Frank Krist and William Monahan

12:15 PM LUNCH

12:15 PM POSTER SESSION: Comparing Unthinned Slash Pine Plantation Yield Predictions from Time-of-Planting

Curtis L. VanderSchaaf, Gordon Holley, and Joshua Adams

1:15 PM Welcome to Day 3, Afternoon Session

Conference Host

FVS Projects: FSveg Spatial Data Analyzer

1:30 PM Application of Climate-Fvs Using Fsveg Spatial Data Analyzer on Large Landscapes: A 4fri Analysis

Lloyd R. Fuller and Jonathan Marston

2:00 PM Using LANDFIRE, FSveg Spatial Data Analyzer Nearest Neighbor, FVS and FlamMap to Compare Treatment Effects across a Landscape

James Arciniaga

2:30 PM Linking the FVS Econ Extension and FSveg Spatial Data Analyzer to Map Timber Ecosystem Services On The Monongahela National Forest

Chris Haberland and Jonathan Marston

3:00 PM BREAK

FVS Projects: Economics

3:30 PM Economic Returns of White Spruce Plantation Thinning Scenarios Using Forest Vegetation Simulator (FVS)

Curtis L. VanderSchaaf, Gordon Holley, and Joshua Adams

4:00 PM Even-and Uneven-Aged Management Scenarios for Maximizing Economic Return in the Sweetgum - Nuttall Oak - Willow Oak Forest Type of the Bottomland Hardwood Forest in the LMAV

Sunil Nepal, Brent R. Frey and James E. Henderson

4:30 PM Closing Remarks

Conference Host

4:45 PM End of FVS e-Conference

