



### PROVIDING TECHNOLOGY FOR FOREST HEALTH PROTECTION

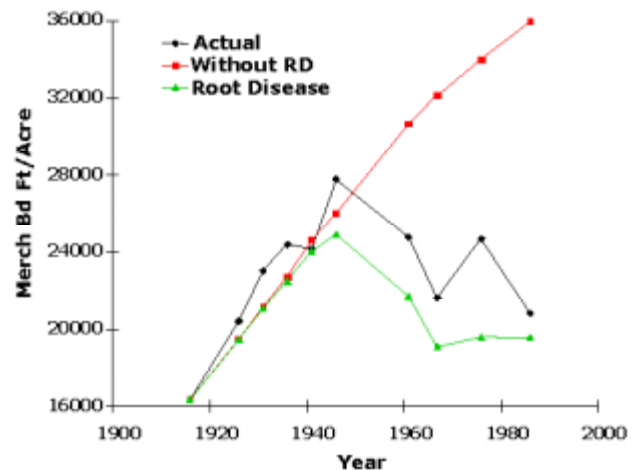
FHTET develops event monitor files to make it easy for forest health specialists to include insect and disease actions in predicting forest change through the Forest Vegetation Simulator (FVS). The accuracy of these predictions are important because better forest health decisions are possible when managers, staff specialists, and the public can “see” how insects and pathogens, as well as other change agents (e.g., fire, silvicultural treatments), could change forest vegetation over time.

#### What Event Monitor Files Do

The Forest Vegetation Simulator is a stand based, distant-independent, growth-and-yield projection model that uses current inventory methods for input data. Output projections from FVS can often be grossly over-estimated if insect and pathogen impacts are not taken into account. One method for portraying these impacts is through the development of an event monitor file.

An event monitor file, or Addfile, is a complex assemblage of keywords (a set of commands and associated numeric data) arranged in a logical sequence. This multifaceted file is designed, developed, and saved for use with the Forest Vegetation Simulator (FVS) model. This file provides an IF...THEN structure to events portrayed in FVS runs: IF certain criteria are met or thresholds exceeded, THEN specified management activities are invoked.

#### Pest Impacts in Projections



Use of pest considerations in FVS modeling improves the accuracy of projections.

#### Advantages of Event Monitor Files for users

- Control
  - Obtaining source code and recompiling is unnecessary
  - Technical assistance from FHTET can be minimized
  - Programming skills are not required
- Flexibility
  - Local variations can be included
  - Can incorporate current research findings
  - Becomes a part of FVS run
- Easier to maintain

#### Advantages of Event Monitor Files for Developers

- Quick development time
- Based on research findings
- Resident experts involved
- Less expensive to produce
- Easier to maintain

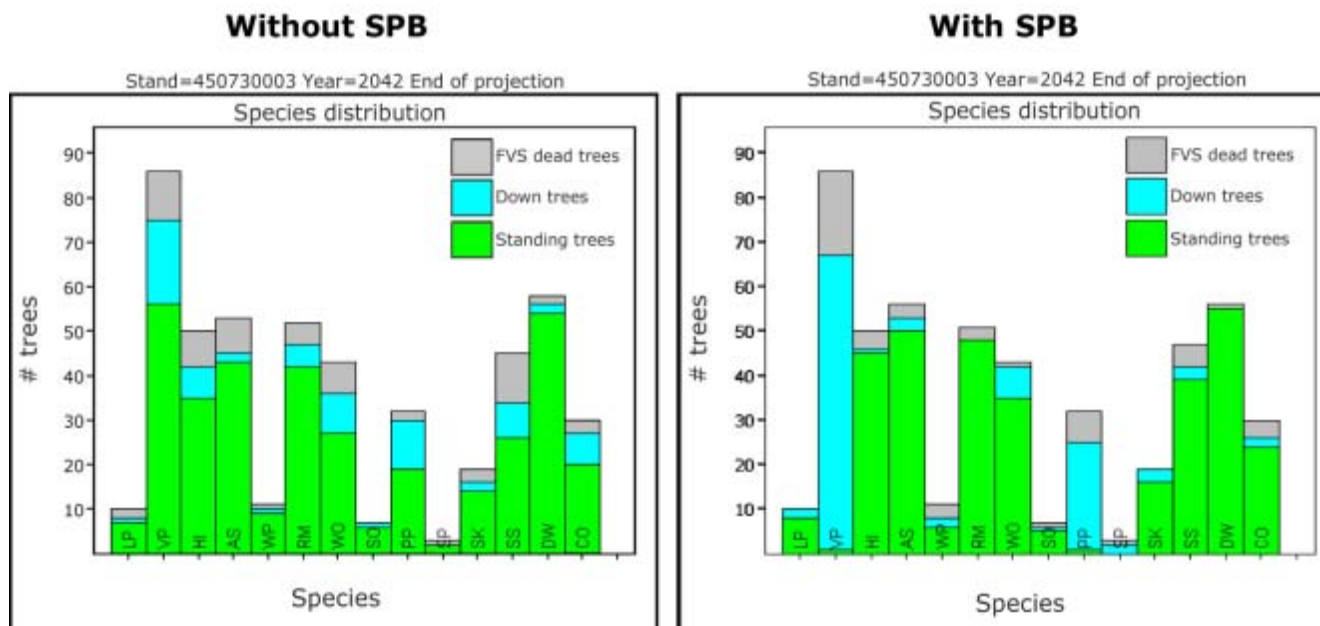
## Event Monitor Files Currently Available

- Mountain Pine Beetle in Lodgepole Pine Risk Rating
- Southern Pine Beetle (3 Geographical Versions)
- Spruce Beetle Risk Rating
- FVS Event Monitor ArcView Project (FVS-EMAP) Information
- Stand Summary Statistics
- Oak Decline (beta version, upon request)

## FHTET Modeling Support Services

- Develop event monitor files
- Provide documentation, Web access
- Technical support and assistance

## Species Composition



Modeling results (40 - year projections) with and without southern pine beetle (SPB) impacts show considerable differences in predicted populations of 14 tree species.

### Access to the Event Monitor Files (Addfiles)

Entering the Web at:

<http://www.fs.fed.us/foresthealth/technology/products.shtml>

or a link from the FVS site

<http://www.fs.fed.us/fmsc/fvs/software/addfiles.php>

takes the user to the FHTET homepage, where products can be specified.

### For more information contact:

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