



Jingjing Liang

WestProPlus[©]

**A Stochastic Spreadsheet Program for the Management of All-Aged
Douglas-fir - Western Hemlock Forests in the Pacific Northwest**

What is WestProPlus?

- A computer program to predict the development of all-aged Douglas-fir - western hemlock forests in the Pacific Northwest.
- With this program, various management regimes can be considered, and their outcomes can be quickly predicted.

How does WestProPlus Work?

- 1. You specify an initial stand state, define a management policy by target stand state, and cutting cycle.
- 2. You choose deterministic or stochastic simulation.
- 3. WestProPlus predicts economic and ecological effects of the policy.

How Features WestProPlus?

- Simple
- Simple
- Robust

What Supports WestProPlus?

1. Deterministic/Stochastic stand growth models
2. Deterministic tree volume model
3. Deterministic log grade model
4. Stochastic stumpage prices model
5. Stochastic interest rate model

1,2: Liang, J, J. Buongiorno, and R.A. Monserud. 2005. Growth and Yield of All-aged Douglas-fir/western hemlock Stands: A Matrix Model with Stand Diversity Effects. **Canadian Journal of Forest Research** 35: 2369-2382.

1, 3, 4, 5: Liang, J, J. Buongiorno, R.A. Monserud. 2006. Bootstrap simulation and response surface optimization of management regimes for Douglas-fir/western hemlock stands. **Forest Science** (IN PRESS).

WestProPlus Resources

- Free copy:

<http://www.forest.wisc.edu/facstaff/buongiorno/>

- Manual:

Coming to USDA Forest Service GTR soon

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