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Education and Training

University of Florida	Forest Economics	Ph.D. 2005
University of Florida	Agroforestry	Masters 2000
Oklahoma State University	Forestry	B.S. 1994

Professional Experience

2010-Present P.I, BETO Supply Forecasting and Analysis Project; Team Lead, Bioenergy Resource and Engineering Systems; Natural Resource & Environmental Economist, Oak Ridge National Lab.

2007-2010 Project Director, BioResource Management, Gainesville, FL.

2009 Co-instructor, Introduction to Natural Resource and Environmental Economics. University of Florida, Gainesville, FL.

2005-2007 Postdoctoral Research Associate, University of Florida, Gainesville, FL.

1998 W.M. Beaty & Associates, Inc., Susanville, CA.

1997-1998 Environment Sector Coordinator, Peace Corps, Asunción, Paraguay.

1994-1996 Agroforestry Field Extension Agent, Peace Corps, Rural Paraguay.

Refereed Publications

U.S. Department of Energy. 2017. 2016 Billion-Ton Report: Advancing Domestic Resources for a Thriving Bioeconomy, Volume 2: Environmental Sustainability Effects of Select Scenarios from Volume 1. R. A. Efroymson, **M. H. Langholtz**, K.E. Johnson, and B. J. Stokes (Eds.), ORNL/TM-2016/727. Oak Ridge National Laboratory, Oak Ridge, TN. 642p. doi 10.2172/1338837

U.S. Department of Energy. 2016. *2016 Billion-Ton Report: Advancing Domestic Resources for a Thriving Bioeconomy, Volume 1: Economic Availability of Feedstocks*. **M. H. Langholtz**, B. J. Stokes, and L. M. Eaton (Leads), ORNL/TM-2016/160. Oak Ridge National Laboratory, Oak Ridge, TN. 448p.

Efroymson, Rebecca, Virginia Dale, Matthew H. Langholtz, Socioeconomic Indicators for Sustainable Production and Use of Algal Biofuels. Global Change Bioenergy. *In review*.

Langholtz, M., Andre Coleman, Mark Wigmosta, Laurence Eaton. Langholtz, M., Coleman, A., Eaton, L., Wigmosta, M., Evaluation of Potential Land Competition Between Open-Pond Micro Algae Production and Terrestrial Dedicated Feedstock Supply Systems. Algal Biomass, Biofuels, and Bioproducts. *In review*.

Hellwinckel, Chad, Christopher Clark, **Matthew Langholtz**, and Laurence Eaton. 2015. "Simulated impact of the renewable fuels standard on US Conservation Reserve Program enrollment and conversion." GCB Bioenergy:n/a-n/a. doi: 10.1111/gcbb.12281.

Muth, David J., Jr., **Matthew H. Langholtz**, Eric C. D. Tan, Jacob J. Jacobson, Amy Schwab, May M. Wu, Andrew Argo, Craig C. Brandt, Kara G. Cafferty, Yi-Wen Chiu, Abhijit Dutta, Laurence M. Eaton, and Erin M. Searcy. 2014. "Investigation of thermochemical biorefinery sizing and environmental sustainability impacts for conventional supply system and distributed pre-processing supply system designs." *Biofuels Bioproducts & Biorefining-Biofpr* 8 (4):545-567. doi: 10.1002/bbb.1483.

- Langholtz, M. H.**, Eaton, L. M., Turhollow, A., & Hilliard, M. R. (2014). 2013 Feedstock Supply and Price Projections and Sensitivity Analysis. *Biofuels Bioproducts & Biorefining-Biofpr*, 8(4). doi:10.1002/bbb.1489 (lead analyst and author)
- Turhollow, Anthony, R.D. Perlack, Laurence M. Eaton, **Matthew H. Langholtz**, Craig C. Brandt, Mark E. Downing, Lynn Wright, Kenneth E. Skog, Chad M. Hellwinckel, Bryce Stokes, and Patricia Lebow. 2014. "The updated billion-ton resource assessment." *Biomass and Bioenergy* 70:15.
- Dale, Virginia H., **Matthew H. Langholtz**, Beau M. Wesh, and Laurence M. Eaton. 2013. "Environmental and Socioeconomic Indicators for Bioenergy Sustainability as Applied to Eucalyptus." *International Journal of Forestry Research* 2013:10. doi: 10.1155/2012/215276.
- Argo, A. M., Tan, E. C., Inman, D., **Langholtz, M. H.**, Eaton, L. M., Jacobson, J. J., ... Graham, R. L. (2013). Investigation of biochemical biorefinery sizing and environmental sustainability impacts for conventional bale system and advanced uniform biomass logistics designs. *Biofuels, Bioproducts and Biorefining*, 7(3), 282–302. doi:10.1002/bbb.1391 (contributed economic analysis of feedstocks)
- Clark, C. M., Lin, Y., Bierwagen, B. G., Eaton, L. M., **Langholtz, M. H.**, Morefield, P. E., ... Bush, B. W. (2013). Growing a sustainable biofuels industry: economics, environmental considerations, and the role of the Conservation Reserve Program. *Environmental Research Letters*, 8(2), 025016. doi:10.1088/1748-9326/8/2/025016
- Langholtz, Matthew**; Webb, Erin; Preston, Benjamin; Turhollow, Anthony; Breuer, Norman; Eaton, Laurence; King, Anthony; Sokhansanj, Shahabaddine; Nair, Sujithkumar; Downing M. Advancing Climate Risk Management for the U.S. Cellulosic Biofuels Supply Chain. *Clim Risk Manag.* 1–20. doi:10.1016/j.crm.2014.05.001
- Langholtz, M. H.**, Downing, M. E., Graham, R. L., Baker, F., Compere, A., Griffith, W., ... Keller, M. (2014). Lignin-Derived Carbon Fiber as a Co-Product of Refining Cellulosic Biomass. *SAE Int. J. Mater. Manf.*, 7(4), 115–121. doi:10.4271/2013-01-9092
- Langholtz, M. H.**, & Jacobson, M. (2013). The Economic Availability of Woody Biomass Feedstocks in the Northeast. In M. Jacobson & D. Ciolkosz (Eds.), *Wood-Based Energy in the Northern Forests* (pp. 27–50). New York, NY: Springer.
- Dale, Virginia H., Rebecca A. Efroymsen, Keith L. Kline, **Matthew H. Langholtz**, Paul N. Leiby, Gbadebo A. Oladosu, Maggie R. Davis, Mark E. Downing, and Michael R. Hilliard. 2013. "Indicators for assessing socioeconomic sustainability of bioenergy systems: A short list of practical measures." *Ecological Indicators* 26:87-102. doi: 10.1016/j.ecolind.2012.10.014.
- Langholtz, M.**, Graham, R., Eaton, L., Perlack, R., Hellwinkel, C., De La Torre Ugarte, D., 2012. Price projections of feedstocks for biofuels and biopower in the U.S. *Energy Policy*.
- Webb, Erin, **Matthew H. Langholtz**, et al. Utilizing resources of the Oak Ridge Reservation to promote forest health and supply wood chips to the ORNL biomass steam plant. ORNL/TM-2011/525. Oak Ridge, TN: Oak Ridge National Laboratory.2011.
- Langholtz, Matthew H.**, et al. Demonstration of the BioBaler harvesting system for collection of small-diameter woody biomass. ORNL/TM-2011/524. Oak Ridge, TN: Oak Ridge National Laboratory.2011.
- Downing, Mark, **Matthew H. Langholtz** et al. U.S. Billion-Ton Update: Biomass Supply for a Bioenergy and Bioproducts Industry. ORNL/TM-2011/224. Oak Ridge, TN: Oak Ridge National Laboratory.2011.

- Turhollow, Anthony, Bob Perlack, **Matthew H. Langholtz**, et al. Energy Crops Cost Database. ORNL/TM-2011/223. Oak Ridge, TN: Oak Ridge National Laboratory.2011.
- Langholtz, M.**, Carter, D., Rockwood, D., Alavalapati, J. R. R., 2009. The Influence of CO2 Mitigation Incentives on Profitability of Eucalyptus Production on Clay Settling Areas in Florida. *Biomass and Bioenergy*. 33(5), pp. 785-792.
- Langholtz, M.**, Carter, D., Rockwood, D., Alavalapati, J. R. R., 2007. The Economic Feasibility of Reclaiming Phosphate Mined Lands With Short-Rotation Woody Crops in Florida. *Journal of Forest Economics*. 12, pp. 237-249.
- Langholtz, M.**, Carter, D., and Schroeder, R., (In Review) The Economic Availability of Woody Biomass, in *Wood to Energy: Utilizing Interface Fuels for Bioenergy*, USDA Forest Service GTR-132.
- Langholtz, M.**, Carter, D., Marsik, M., and Schroeder, R., 2006. Application of ArcGIS Network Analyst to Assess the Economic Availability of Renewable Biomass for Energy, *ArcUser*, Vol. 9, No. 4, October-December Edition, pp. 22-25. Online at <http://www.esri.com/news/arcuser/1006/biomass1of2.html>.
- Rockwood, D., Carter, D., **Langholtz, M.**, Stricker, J., 2006. Eucalyptus and Populus Short Rotation Woody Crops for Phosphate Mined Lands in Florida USA. *Biomass and Bioenergy*. 30, 8, pp. 728-734.
- Langholtz, M.**, Carter, D., Rockwood, D. L., Alavalapati, J. R. R., Green, A., 2005. Effect of Dendroremediation Incentives on the Profitability of Short-Rotation Woody Cropping of *Eucalyptus grandis*. *Forest Policy and Economics*. 7, 5, pp. 806-817.
- Langholtz, M.**, 2005, Economic and Environmental Analysis of Tree Crops on Marginal Lands in Florida. 1-155, PhD Dissertation, School of Forest Resources and Conservation, University of Florida.
- Hodges, A., Degner, R., Carter, D., Stevens, T., **Langholtz, M.**, Morgan, K.. 2005. Market Enhancement for Small Diameter Timber in Florida. University of Florida, IFAS.
- Smith, W., Hermansen, A., Najafi, F., Rockwood, D., **Langholtz, M.**, Toros, A., "Multidisciplinary Academic Demonstration of a Biomass Alliance with Natural Gas" Proc (2004) ICEE conf. Gainesville FL.
- Breuer, N., **Langholtz, M.**, Using Seasonal Climate Variability Forecasts to Plan Forest Plantation Establishment, Florida Cooperative Extension Service Document ABE354, 2004.

Presentations

- Langholtz, M.** "Life, Liberty, and the Pursuit of Biomass: The 2016 Billion-Ton Report Release Plenary". *Bioenergy 2016: Mobilizing the bioeconomy through innovation*. Washington, D.C., July 12th, 2016.
- Langholtz, M.**, Feedstocks for the Bioeconomy. Advanced Biofuels Leadership Conference. Miami, Florida, June 6th 2016
- Matthew H. Langholtz**. "The 2016 Billion-Ton Report, Towards a Thriving Bioeconomy". CRC LCA 2015 Workshop, Argonne, Illinois, USA, October 27th, 2015.
- Efroymsen, Rebecca Ann, Virginia H. Dale and **Matthew H. Langholtz**. "Environmental and socioeconomic indicators for sustainable production of algal biofuels." *Algae Biomass summit*, Washington, DC, District of Columbia, USA, September 30 — October 02, 2015.

Kline, Keith L., Virginia H. Dale and **Matthew H. Langholtz**. "Biomass for Bioenergy: an overview of research at ORNL." Biobased economy in northwest Europe, wishful thinking or real opportunities workshop, Utrecht, Netherlands, December 01—02, 2014.

Dale, Virginia H., Laurence M. Eaton and **Matthew H. Langholtz**. "Biomass for bioenergy: resources today and in the future (title stipulated by ESPCA organizer)." FAPESP ESPCA: Advanced School on the Present and Future of Bioenergy 2014, Campinas, Sao Paulo, Brazil, October 10—17, 2014.

Efroymsen, Rebecca Ann, Virginia H. Dale and **Matthew H. Langholtz**. "Sustainable Development of Algae for Biofuel: Select Accomplishments and Directions." DOE Algal Biofuels Strategy Workshop, Charleston, South Carolina, USA, March 26—27, 2014.

Kang, Shujiang, et al. "Bioenergy Crop Models [and issues of disturbance]." Global Sustainable Bioenergy (GSB) and LACAf Workshop and Planning Meetings, Atibaia (near Campinas), Sao Paulo State, Brazil, Brazil, November 11—14, 2013.

Griffiths, Natalie A., et al. "Short Rotation Woody Biomass Sustainability." Bioenergy Technologies Office 2013 Peer Review Meeting: Sustainability Platform, Alexandria, Virginia, USA, May 20, 2013.

Stokes, Bryce, **Matthew H. Langholtz** and Laurence M. Eaton. "Billion-Ton Update and Ongoing Resource Assessment ." Bioenergy Technologies Office Peer Review 2013, Alexandria, Virginia, USA, May 20, 2013.

Efroymsen, Rebecca Ann, **Matthew H. Langholtz** and Virginia H. Dale. "Sustainable Development of Algae for Biofuel." DOE peer review, Alexandria, Virginia, USA, May 20—23, 2013.

Langholtz, Matthew H., Laurence M. Eaton and Anthony F. Turhollow Jr. "2013 BETO Peer Review: Resource Analysis Project WBS 1.6.1.3 ." 2013 BETO Peer Review, Alexandria, Virginia, USA, May 20, 2013.

Langholtz, Matthew H. "Billion-ton Update: Opportunities and Challenges in the Utilization of Alternative Fibers." Opportunities and Challenges in the Utilization of Alternative Fibers, Atlanta, Georgia, USA, August 28, 2012.

Langholtz, Matthew H. "Billion-ton Update: An Overview, 5th Annual Biomass Supply Chain and Logistics Conference." 5th Annual Biomass Supply Chain and Logistics Conference, Atlanta, Georgia, USA, May 10, 2012.

Langholtz, Matthew H., et al. "Harvest Scheduling of Eucalyptus spp. in Florida for Economic and Environmental Optimization." Symposium on the Assessment and Management of Environmental Issues Related to Eucalyptus Culture in the Southern United States, Charleston, South Carolina, USA, February 22—24, 2012.

Dale, Virginia H. and **Matthew H. Langholtz**. "Environmental and Socioeconomic Indicators for Bioenergy Sustainability as Applied to Eucalyptus." Symposium on the Assessment and Management of Environmental Issues Related to Eucalyptus Culture in the Southern United States, Charleston, South Carolina, USA, February 22—24, 2012.

Professional training:

Situational Leadership II (SLII), Blanchard Certified, April-October 2014, Oak Ridge National Laboratory, Oak Ridge, TN

Project Management Foundation Skills, April 27-29, 2011, Management Training & Development Center, Oak Ridge National Laboratory, Oak Ridge, TN