LYNN WRIGHT

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RECENT AND CURRENT PROFESSIONAL ACTIVITIES

- Invited Speaker for the International Energy Agency, Short Rotation Crops Task Meeting to be held in New Zealand in December 2009.
- Invited Speaker for International Forestry& Energy Conference In Brazil (Madiera, 2008)
- Biomass and Bioenergy Editorial Board 1997 to present (2010)
- Frequently serve on proposal review panels for DOE
- Several synthesis papers on biomass topics have been published or are in preparation.
- Active contributor to the Short-Rotation Woody Crops Operations Working Group an industry/academia/government organization for sharing information on woody crops

WORK HISTORY IN BIOMASS (1982 – 2010)

- <u>1/05 present: Sole proprietor of WrightLink Consulting, a company formed to perform</u> research and analysis work for companies developing biomass energy technology and for Oak Ridge National Laboratory's biomass group.
- 1/04 present: <u>University of Tennessee Adjunct Faculty</u> in the Biosystems Engineering and Soil Science Department.
- 10/01 12/03: <u>Bioenergy Systems Groups Leader</u> within Environmental Sciences Division and <u>Leader of Feedstock Research</u> within the National Bioenergy Center (multi-DOE lab effort)
- 10/99 12/03: Co-manager of Bioenegy Feedstock Development Program,
- 4/94 12/03: <u>Biomass Energy Systems Coordinator</u> within Oak Ridge National Laboratory
- 10/90- 9/99: Deputy Manager, Biofuels Feedstock Development Program, ORNL
- 1/89 9/90: Program Manager, Short Rotation Woody Crops Program, ORNL
- 9/82 12/88: <u>Project Manager</u>, Short Rotation Woody Crops Program, ORNL.

EDUCATION

- M.S. 1974 Ohio State University, Columbus, Ohio (Ecology/Zoology)
- B.S. 1969 University of Washington, Seattle, WA (Zoology)
- Studied 1965–1967 at University of East Africa, Dar es Salaam, Tanzania

SELECTED REFEREED ARTICLES ON BIOMASS TOPICS (out of 22)

- Wright, L.L. and Turhollow, A.F. 2010. Switchgrass Selection As A "Model" Bioenergy Crop: A History Of The Process. Biomass and Bioenergy (2010), doi:10.1016/j.biombioe.2010.01.030
- Dale, V., Wright, L., Kline, K., Perlack, R., Graham, R., Garten, C., and Downing, M. 2010. Interactions between Bioenergy Feedstock Choices and Landscape Dynamics and Land Use. Ecological Applications (In Review March 2010).
- Graham, R.L., R. Nelson, J. Sheehan, R.D. Perlack, and L.L. Wright. 2007. Current and Potential U.S. Corn Stover Supplies. Agron. J. 99:1-ll.
- Wright, LL. 2006. Worldwide commercial development of bioenergy with a focus on energy crop-based projects. Biomass and Bioenergy. 30(8-9): 706-714

- Overend, RP. And Wright, L.L. Biomass Energy. pp. 28-44. IN: Chapter 7 of CRC Handbook of Mechanical Engineering, Second Edition . 2005. CRC Press, LLC. Boca Ratan, FL.
- Tolbert, V. R., and L. L. Wright. 1998. Environmental enhancement of U.S. biomass crop technologies: Research results to date. Biomass and Bioenergy 15(1):93–100.
- Perlack, R. D., M. E. Walsh, L. L. Wright, and L. D. Ostlie. 1996. The economic potential of whole-tree feedstock production. Bioresource Technology. 55:223–229.
- Perlack, R. D., and L. L. Wright. 1995. Technical and economic status of wood energy feedstock production. Energy 20(4):279–284.
- Wright, L. L. 1994. Production technology status of woody and herbaceous crops. Biomass and Bioenergy 6(3):191–210.
- Wright, L. L., and E. E. Hughes. 1993. U.S. carbon offset potential using biomass energy systems. pp. 483–497. In Terrestrial Biospheric Carbon Fluxes: Quantification of Sinks and Sources of CO₂. Kluwer Academic Publishers.
- Betters, D. R., L. L. Wright, and L. Couto. 1992. Short rotation woody crop plantations in Brazil and the United States. Biomass and Bioenergy 1(6):305–316.
- Strauss, C. H., and Wright, L. L. 1990. Woody biomass production costs in the United States: An economic summary of commercial populus plantation systems. Solar Energy, Vol. 45(2):105–110.
- Landsberg, J. J., and L. L. Wright. 1989. Comparisons among *Populus* clones and intensive culture conditions using energy-conversion model. For. Ecol. Manage. (27):129–147.
- Ranney, J. W., L. L. Wright, and P. A. Layton. 1987. Hardwood energy crops: The technology of intensive culture. J. For. 85:17–18.

SELECTED NON-REFEREED PUBLICATIONS ON BIOMASS TOPICS (of 63 total)

- Wright, L.L., Gunderson, C.A., Davis, E.B., Perlack, R.D., Baskaran, L.M., Eaton, Downing, M.E.. 2009. Switchgrass Production Potential and Use for Bioenergy in North America. Proceedings International Energy Agency/Bioenergy Task 30 Conference:Linking Technology and Biomass. Published online at http://bioenergy.ornl.gov/main.aspx (check news and events).
- Wright, L.L., Boundy, R.G., Badger, P.C., Perlack, R.D., Davis, S.C. 2009. Biomass Energy Data Book: Edition 2. Oak Ridge National Laboratory Technical Manuscript ORNL/TM-2009/098. Published online at http://cta.ornl.gov/bedb/index.shtml
- Dale, V., Kline, K., Mulholland, P., Downing, M, Graham, R., and Wright, L.,. 2009. "Selecting Metrics for Sustainable bioenergy Feedstocks" in the Proceedings of the Second Workshop. Beijing, October 15-17, 2008, China-US joint Research for Ecosystem and Environmental Change [pages 49-53, published by the Institute for a Secure and sustainable Environment, University of Tennessee].
- Wright, L.L. 2007. Historical Perspective on How and Why Switchgrass was Selected as a Model" High-Potential Energy Crop. ORNL/TM-2007/109. Oak Ridge National Laboratory, Oak Ridge, Tenn. Available online at http://www.osti.gov/bridge/basicsearch.jsp (search for switchgrass)
- Perlack, R.D., Wright, L.L., Turhollow, A.F., Graham, R.L., Stokes, B.J., Erbach, D.C. 2006. Biomass as Feedstock for a Bioenergy and Bioproducts Industry: The Technical Feasibility of a Billion-Ton Annual Supply. A joint publication of DOE and USDA available online at www.eere.energy.gov/biomass/publications.html . Also documented as ORNL/TM-2005/66 and DOE/GO-102005-2135
- Kszos, L. A., M. E. Downing, L. L. Wright, J. H. Cushman, S. B. McLaughlin, V. R. Tolbert, G. A. Tuskan, and M. E. Walsh. 2000. Bioenergy Feedstock Development Program Status Report. ORNL/TM-2000/292. Oak Ridge National Laboratory, Oak Ridge, Tenn. Available at http://www.osti.gov/bridge/basicsearch.jsp (search for Kszos)

- Wright, L. L., and G. A. Tuskan. 1997. Strategy, results and directions for woody crop research funded by the U.S. Department of Energy. In Proceedings of the Technical Association of the Pulp and Paper Industry (TAPPI) Pulping Conference, San Francisco, October 19–23, 1997. TAPPI Press, Atlanta.
- Wright, L. L., and J. H. Cushman. 1997. A national research and development strategy for biomass crop feedstocks. pp. 109–118. In Proceedings of the Third Biomass Conference of the Americas, Montreal, August 25–28, 1997. Elsevier Science Limited, Great Britain.
- Couto, L., D. R. Betters, and L. L. Wright. 1994. Technical aspects of commercial eucalypt plantations in Brazil an overview. In Proceedings of the IV Reunion Nacional de Plantaciones Forestales, SARH INIFAP, July 19–21, 1994. Mexico City.
- Wright, L. L., and J. W. Ranney. 1988. Validation and standardization of SRIC production costs. pp. 230–237. In Proceedings of the IEA/BA/Task II Workshop: Economic Evaluation of Short Rotation Biomass Energy Systems. University of Toronto, Toronto.
- Wright, L. L. 1988. Are increased yields in coppice systems a myth? pp. 87–101. In D. L. Klass (ed.), Energy from Biomass and Wastes XI. Institute of Gas Technology, Chicago.
- Wright, L. L., P. A. Layton, and J. W. Ranney. 1988. Development of a research strategy for poplar. pp. 11–28. In B. A. Barkley and G. McVey (eds.), Culture to the Year 2000: Proceedings of the Poplar Council of the U.S. and Canada. Fast Growing Forest Group, Ontario Natural Resources, Brockville, Ontario.

ACCOMPLISHMENTS

- 2008- 2010: Have been supporting the ORNL Biomass Group by collecting and summarizing 30 years of published reports on US woody crop yields in the form of a database and publications (still in process).
- 2007: Completed and web-published a technical manuscript describing how and why switchgrass was selected as a model species for bioenergy crop development in the U.S.
- 2006-2008; Collaboration with others to develop and update a web accessible Biomass Data Book for the U.S. Department of Energy and ORNL.
- 2006: Published a paper summarizing status of commercialization of energy crop production for biomass energy around the world and performed a biomass resource feasibility study for a private sector client.
- 2004- Present; Maintaining and Contributing to the website for the Short Rotation Woody Crops Operations Working Group (www.woodycrops.org)
- 2004 Present: Working with a private sector biomass company to develop and test new wood energy crop planting and harvesting equipment.
- 2004-2006: Contributed to increasing the national interest in biomass energy by describing technically feasible future scenario's by which the US agricultural sector could supply nearly 1 billion tons of biomass feedstocks annually in addition to food, feed, and fodder in a highly visible document. Work performed as a consultant to Oak Ridge National Laboratory.
- 1982-2003: Provided project and program management leadership for 20 years in various roles for the U.S. Department of Energy/Oak Ridge National Laboratory Biomass Feedstock Development Program which received national and international recognition, bi-partisan political support, and annual funding levels of \$2 to 7 million.