

**Bioenergy, Sustainability, and Land-Use Change Report  
Oak Ridge National Laboratory (ORNL) August 2012**

**ORNL Publications:**

Dale, VH, MH Langholtz, BM Wesh, and LM Eaton. In review. Environmental and socioeconomic indicators for bioenergy sustainability as applied to Eucalyptus. International Journal of Forestry Research. (Major revisions requested)

**ORNL Presentations:**

Aug 5-10, 2012 – Several ORNL participated in the 2012 Ecological Society of America (ESA) Annual Meeting in Portland, Oregon.

- A Special Session, "A Debate on the Sustainability of Biomass Production for Energy", focused on the proposition "Producing bioenergy can be sustainable for habitat availability and biodiversity, and can eschew the risk of new invaders." H. Jager was the organizer and R. Efrogmson represented the "for" position.
- Virginia Dale spoke in the Symposium "Bioenergy and Biodiversity: Oxymoron or Opportunity?" on "Environmental and socioeconomic indicators of bioenergy sustainability."
- Keith Kline spoke in the session on "Sustainability" presenting "Models, causal analysis and scientific methods for understanding land-use change (LUC) dynamics."

Aug 19-23 – Debo Oladosu presented "Evaluating the Economic Benefits of the Advanced Biofuels Targets under the RFS2" paper at the 244<sup>th</sup> ACS National Meeting in Philadelphia, PA.

Aug 24 – A delegation from Nissan Motor Company visited ORNL and met with Keith Kline, Matt Langholtz, Laurence Eaton and Shahab Sokhansanj. Kline presented "Bioenergy, Sustainability Science, and Standards."

**ORNL Center for BioEnergy Sustainability (CBES) Forums:**

Aug 16th – Mike Jostrom, Director of Renewable Resources for Plum Creek Timber Company presented "Vested in Carbon: Perspectives of a Large US Forest Owner." This presentation can be accessed at the CBES website under forums:  
<http://www.ornl.gov/sci/ees/cbes/forums.shtml>

**Other ORNL Activities:**

ORNL (Keith Kline and Maggie Davis) continued to support the initiative to develop an International Organization for Standardization (ISO) standard on "Sustainability Criteria for Bioenergy" (ISO 13065) by planning, and facilitating and participating in 16 webinars, consolidating comments, identifying issues and proposing solutions. Kline was selected to lead the 18-member international editing committee toward consensus on a first "committee draft" document that will be distributed for review in September and discussed in the next TC-248 plenary meeting in January 2013.

Aug 24 – Latha Baskaran presented a talk “Effects of switchgrass related land-use changes on aquatic macroinvertebrates” at the Fishheads seminar series in ORNL.

On August 27, Virginia Dale met with Kristen Johnson (DOE EERE) in Washington, DC, and they discussed the Joule 4 Milestone on indicators and targets for bioenergy sustainability, the Council on Sustainable Biomass Production (CSBP), and other activities in which ORNL is engaged.

Aug 31 – Esther Parish and Latha Baskaran assisted UT student Zachariah Seiden during his visits to water sampling sites around the Vonore switchgrass fields. These water quality and water quantity data are being collected through the USDA-funded IBSS project led by the University of Tennessee.

Esther Parish and Virginia Dale contributed information on switchgrass and woody biomass to a report entitled “Sustaining Tennessee in the Face of Climate Change: Grand Challenges and Great Opportunities.” Researchers from across the State of Tennessee contributed information to this 72-page report led by ORNL’s Climate Change Science Institute (CCSI). The report will be presented to the Mayor of Nashville and other Tennessee leaders in business, government, and nongovernmental organizations at a conference planned for September 11, 2012.

### **Upcoming ORNL Visits/Events:**

September 18 – Rebecca Efroymson will present “Indicators to support assessment of sustainability of bioenergy systems” at the 12<sup>th</sup> International Symposium on Biosafety of Genetically Modified Organisms in St Louis, MO.

October 2012 - Virginia Dale is serving as a member of the Conference Programming Committee for the "Science for Biomass Feedstock Production and Utilization National Conference" to be held in October 2012 in New Orleans and sponsored by the Sun Grant Initiative. <http://www.sungrant.org/News+and+Events/2012+National+Conference.htm>

November 5-8 – The 9<sup>th</sup> Biennial Short Rotation Woody Crops Operations Working Group will meet in Oak Ridge and Knoxville, Tennessee.

November 12-15 – Latha Baskaran will present “Modeling the effects of switchgrass management on aquatic macroinvertebrates” at the 2012 AWRA Annual Water Resources Conference in Jacksonville, FL.

April 2-4 – Virginia Dale will be the keynote speaker at the 3<sup>rd</sup> Kentucky Invasive Species Conference on “*Where we were, Where we are, and Where we should be*” in Lexington, KY.