

USDA-ORNL Collaboration Plans

Scientists with the United States Department of Agriculture (USDA) and Oak Ridge National Laboratory (ORNL) are developing plans to collaborate on issues related to bioenergy sustainability. Their general objectives include the cultivation of productive partnerships to accelerate achievement of DOE and USDA goals related to the new Renewable Fuels Standard (RFS2) and sustainable bioenergy crop production. The central theme of these discussions is to take advantage of opportunities where improved collaboration is most likely to help achieve mutual goals more effectively, efficiently, and quickly. Ongoing USDA-ORNL discussions are designed to support and complement regular meetings between USDA and the Department of Energy's Efficiency and Renewable Energy [EERE] and Office of the Biomass Program [OBP].

Continuing the efforts to improve coordination around common bioenergy research themes, ORNL and USDA have developed long list of potential areas of collaboration:

- Global Sustainable Bioenergy Project (GSB) – and the North America Convention in Minneapolis (14-16 September)
- Next steps that build upon the “2010 Outlook Meeting Summary Report” (USDA-NCSE) and the co-authored manuscript/presentation for the “Sustainable Feedstocks for Advanced Biofuels” workshop in Atlanta, GA (28-30 September).
- Improving data and tools required to estimate future supply curves (supply, demand) and environmental effects associated with expanding bioenergy markets at national and global scales (POLYSYS and GTAP)
- Developing consistent baselines and data sets as frameworks for future analysis; example: Billion Ton Study
- Implementation of China clean energy memorandum of understanding (MOU): feedstock supplies, costs and sustainability analysis
- Coordinated experiments to measure effects of bioenergy production at the watershed scale
- Biomass R&D Interagency Board and Biofuel Interagency Working Group
- Sustainability metrics and tools for productive bioenergy markets US and global (Global Bioenergy Partnership (GBEP), Roundtable on Sustainable Biofuels (RSB), Council on Sustainable Biomass Production (CSBP), etc.
- Analysis of sustainability of feedstock supplies related to RFS2, Farm Bill incentive programs, Resource Conservation Act (RCA), and the Biomass Crop Assistance Program (BCAP) with specific emphasis on how to better target incentives to achieve optimize desired effects with available (limited) funding.
- Approaches, metrics, and data sets to support greenhouse gas (GHG) emission calculations and soil carbon monitoring associated with bioenergy feedstock production

A potential area for near-term collaboration is a case study based on recent USDA data and analysis of potential corn stover removals in the Midwest. This effort will include key variables such as tillage intensity (e.g., combining no-till with appropriate rates of stover removal to maintain soil carbon and erosion control benefits). The case study will highlight opportunities, barriers, benefits and concerns related to estimated stover removal rates used for the Billion Ton Study update.