Council on Sustainable Biomass Production

Air Resources Board Workshop

September 15, 2010
Our Goal
Ensure that biomass feedstocks in the U.S. are produced in a sustainable manner, balancing economic, environmental and social goals.

Our Strategy
Develop and promote a voluntary standard and third-party verified certification system through which growers of biomass and biofuel/bioenergy producers can be recognized in the market.
CSBP Focus

• dedicated fuel crops (e.g., switchgrass)
• crop residues (e.g., corn stover)
• purpose-grown wood (e.g., poplar plantation)
• forestry; and,
• native vegetation (e.g., mowed prairie).

Does not include food crops.
All stakeholders using consensus based decision-making

- **Producers/farmers:** PA’s Monona Farms, Iowa’s Prairie Lands Bio-Products, Weyerhaeuser, MO’s Show Me Energy
- **Refiners:** Verenium Corporation, Dupont Dansico, Genera Biomass
- **ENGOS:** EDF, NRDC, TNC, TRCP, NWF, AFF
- **Energy Companies:** Chevron, Duke Energy
- **Biotech Companies:** Mendel, Ceres, ArborGen
- **Agencies:** USDA (Forestry and Ag), EPA, DOE’s Office of Biomass Production, Assoc. of Fish and Wildlife Agencies, National Assoc. of State Foresters
- **Academics:** Texas A&M, Energy Biosciences Institute (Univ. of Illinois)
Provisional Standard

• Two years of intensive work
• Address the full complement of sustainability issues through *principles, criteria, and indicators*
CSBP Standard

• Applicable to both agriculture and silviculture.
  • Climate Change
  • Biological Diversity and Productivity
  • Water Quality and Quantity
  • Soil Quality
  • Socio-Economic Well-being
  • Integrated Resource Management Planning

• Through *principles, criteria, and indicators*
Principle/Criteria/Indicators

P: **Soil:** Biomass production shall maintain or improve soil quality by minimizing erosion, enhancing carbon sequestration, and promoting healthy biological systems and chemical and physical properties.

C: **Maintain or improve soil health.** Minimize erosion and maintain soil carbon and nutrients at appropriate levels...

I: **Soil assessment and monitoring:** assesses and monitors nutrient levels of the soil or plants and soil capabilities guide management decisions.
Principle/Criteria/Indicators (cont.)

I: **Soil nutrient and conservation planning**: conserves soil and maintains its productivity through an integrated resource management plan.

I: **Residue removal**: retains biomass materials required for erosion control and soil fertility.

I: **Compaction**: identifies soils vulnerable to compaction and uses appropriate methods....

I: **Road construction**: limits field travel zones or paths...

I: **Erosion**: score less than or equal to T on RUSLE-II....

I: **Soil carbon**: maintains or improves soil carbon levels. (zero or positive score on Soil Conditioning Index)
Agriculture: Draft Standard \(\rightarrow\) Provisional Standard

- **Field testing of the standard in 2010**
  - Feasible/practical for large growers, small growers, and cooperatives
  - Scientifically valid as a measure of sustainability

- **Field testing of certification program in 2011**

- **Finalization and launch of certification program in 2012**
Forestry:

• Coordinating with existing forestry certification programs (in process of developing biomass components)

• Short rotation woody biomass???

• Completion of forestry components by 2012.
Biomass Users Standard

- Cover biomass conversion to both biofuel and biopower
- Begin development late-2010
- Standard completed and certification program launched in 2012
Key Challenges for Sustainable Cellulosic Biomass Production

• Farmer Engagement and Interest in Sustainability for New Industry
• Developing the Value Proposition for Sustainable Biomass Production
• Land Conversion for Biofuels (forests and grasslands)
• GHG Emission Measurement
• Indirect Land Use Change Impacts
• Feedstock vs. Refinery Sustainability
Other Agricultural or Biomass Sustainability Standards Under Development

Keystone Alliance for Sustainable Agriculture – Field to Market  www.fieldtomarket.org

Leonardo Academy Sustainable Agriculture Standard  www.leonardoacademy.org/programs/standards/agstandard/development.html

Roundtable on Sustainable Biofuel  www.rsb.org
To submit comments:
Link provided at www.csbp.org

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Questions & Discussion