

# **Beyond ILUC:**

## **Towards a Sustainable Biofuels Industry**

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Frontline BioEnergy**

**IATP - ILUC Meeting - September 14, 2011**

# My Bona Fides: An Early Sparring Round

Friday, February 15, 2008 9:06 am  
**Minnesota Public Radio Stories**



**Midmorning**  
with Kerri Miller

- [Are biofuels earth-friendly?: Two recent studies in the journal Science argue that biofuels like ethanol might contribute to global warming.](#)

Guests:

**Joe Fargione:** Regional science director for the Nature Conservancy.

**Timothy Searchinger:** Researcher at the Woodrow Wilson School of Public and International Affairs at Princeton University.

**Bill Lee:** General Manager of the Chippewa Valley Ethanol Company in Benson, MN and former chairman of the Renewable Fuels Association.

# sustainability, *adj.*...

Show of  
hands....

Is it Important?

Or Not?



**“We can’t get it together, it IS together...”**  
**Stewart Brand**

# Further Points of Agreement?

- **Extracting finite fossil energy from the earth is not sustainable by any definition**
- **Biofuels can have much lower carbon intensity (CI) than fossil fuels and have the potential to be “sustainable”**
- **Biofuels have “inherited” concerns over the sustainability of modern crop agronomy**

# How to Create Sustainable Biofuels and Agricultural Industries

First, you get consensus on....

**“Sustainability”**

...then quickly move on to the difficult bits...



# What's Your Definition of Sustainable Agronomy?

- **Soil Scientist:** Carbon / Organic Matter Content
- **Conservationist:** Topsoil Erosion
- **Farmer:** Productivity, Yields and Profits
- **Economist:** Commodity and food prices, jobs, BOT
- **Environmentalist:** water use/water quality impacts
- **Ecologists:** Species diversity
- **Climate scientists:** Net GHG emissions
- **Nat'l Security/Military Strategist:** Domestic fuels
- **Social Scientist:** Viable of small farm communities

**Can we say that outcomes that only optimize some of these concerns are Sustainable?**

# Sustainability and Biofuels Policies

## RFS2

- 1<sup>st</sup> complete year = 2011
- Sole metric is CI\*
- Huge market potential
- Pass:Fail
- Corn ethanol = Success!(?)
- Cellulosic & Advanced biofuel = Failure to-date
- ILUC wrangling will have minimal affect

\*15 bgpy cap for corn ethanol is a permanent implicit metric of unsustainability

## LCFS (CA & Other States)

- 1<sup>st</sup> reporting year = 2011
- Sole metric is CI
- Huge market potential
- Rewards improvement
- Feedstock & technology neutral
- ILUC increment could inhibit some biofuels participation
- No certainty that its back-loaded, steeply inclining requirements will drive biofuels innovation or use

# How Did We Get Here?

- **RFS2 and LCFS reflect battles between two (too) narrow sustainability definitions**
  - **Environmental community:  
Flawed Perspectives**
  - **Ag/Biofuel community:  
Flawed Perspectives**
- **RFS2 corn ethanol trade-offs – were they worth it?**
- **LCFS – uncertain sustainability outcome!**

# What is a Better Direction?

- **Ag and Enviro!** – More engagement, dialog and a broadening mutual definition of “sustainability”
- **Start small, start larger, just Start Talking**
- **In policy initiatives - strive for:**
  - Performance-based incentives
  - Feedstock and technology neutrality
  - Honest accounting of the fossil baseline
  - Simple, manageable but robust metric accounting
  - Prioritize initiatives that improve multiple metrics
- **Current level of combativeness favors status quo**
- **“Better Together\*” alignment is absolutely necessary to broadly advance “sustainability”**



*\*N. Greene – 11:37 am IATP/ILUC Meeting U of M .St. Paul*