Sustainability Roadblocks and Opportunities

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Sustainability

WHY?
So What’s New about “Agricultural Sustainability?” Ultimate Driver

“My family has been farming this ground for four generations – now that’s sustainability.”

But will your grandchildren be able to do the same? The world they farm in will be very different …

• More people
• Less land
• More pressure on fewer resources
Proximate Driver

Reputation Protection

- Right-to-know
- Culture of Food – the rise of celebrity chefs and foodies
- Internet – everything is available to everyone immediately
- Social Networking – Facebook, MySpace, Twitter, Reddit, Yelp, LinkedIn, Pinterest, ad infinitum
- Green guides – Good Guide, Consumer Reports, Greenpeace, Good Housekeeping, National Geographic …

Food Chain Transparency

- Kashi and GM soy

“It takes 20 years to build a reputation and five minutes to ruin it” Warren Buffet

“Angry Consumers Deluge Kashi with Concerns over GMO Subterfuge” Cornucopia Institute

“Consumers Get Wise to Kashi’s Use of GM Soy Thanks to Social Media” Fresh Fuzz
Environmental Performance
For environmental performance, GoodGuide is aggregating data on the life-cycle impacts of products, from manufacturing to transportation to use to final disposal. For companies, impact categories include:

- Environmental emissions and their impacts on air, water, land, and climate
- Natural resource impacts
- Environmental management programs

Social Performance
For social issues, GoodGuide aggregates data on the social impacts companies have on their employees, consumers and communities:

- Compensation
- Labor and human rights practices
- Diversity policies
- Working conditions
Sustainability

HOW??? METRICS!
What Metrics Should Look Like

Metric Parameters Should

• Measure outcomes not practices – don’t tell farmers how to farm, encourage innovation along the food chain
• Apply to a broad range of agricultural production systems
• Be objective and reproducible
• Be easily measured using simple algorithms and data available to all producers
• Track genuine progress in mitigating impacts
• Protect proprietary information
• Not burden the food chain
What Do We Hope to Accomplish?

Metrics Should Help

• Tell the good story about modern food production
• Encourage innovation and continuous improvement
• Justify technology
• Minimize paperwork
• Make a profit
• Feed the world
• Save the planet

Adapted from WWF-US
Why Metrics?

Eliminate

• Marketing by anecdote
• Vagueness/Irrelevance
• Greenwashing

Manage Change

• Incorporating Lean Thinking into agriculture
• “You can’t manage what you don’t measure” Anon
• “Trust but verify” Reagan
• “In God we trust, all others bring data” Deming

The goal of Lean Thinking is to maximize customer value while minimizing waste. Understanding success requires metrics!
Obstacles and Opportunities

Food Chain Concerns
• Consumes precious time and money
• Requires building a complete infrastructure
• Reveals proprietary information
• Strains buyer-seller relationships
• Allows potential misuse/abuse of data
• Harms global competitiveness… or helps?

Opportunities
• Drive food chain efficiencies
• Compel software integration
• Reassure stakeholders – consumers, buyers, investors, employees, regulatory agencies
• Sell value added
Tragedy of the Commons (Hardin 1968)

- Unrestricted demand for a finite resource ultimately dooms the resource to overexploitation.
- The positives accrue to the abuser, the negatives to all the users.
- Finite resources considered to be subject to the tragedy of the commons in agriculture include:
  - Water – quantity and quality
  - Air – quality and greenhouse gases
  - Soil – quantity and quality
  - Energy – efficiency, renewability and cleanliness
  - Ecosystems – impacts can be wide-ranging and unpredictable
  - Good will – we are integrally linked to our communities
What’s Next?

What’s our goal? – Make money, be globally competitive and save some water and soil for our grandkids.