

Creating Sustainable Outcomes for Agriculture





The Keystone Center

Creating Sustainable Outcomes for Agriculture

- The Keystone Center is a non-profit organization founded in 1975 to ensure that present and future generations approach environmental and scientific dilemmas and disagreements creatively and proactively
- Overall objective:
 - Create a single platform that can be used throughout the agricultural supply chain to improve the overall sustainability of production agriculture, rather than any one entity.
 - Start the effort with a focus on the agriculture supply chain in the US, establishing methods that can be applicable to other chains and geographies.



The broad conversation on sustainability has matured in many sectors



Common sense and technology are teaming up to create practical solutions



There are opportunities to better define sustainability in agriculture – the global picture

Key environmental impacts of global agriculture:

- 55% of habitable land and growing
- 70% of human use of water, >60% wasted
- 70-90% of farmers lose more carbon/year than put back
- Highest industry use of chemicals
- More environmental impact, including pollution, than any other human activity
- Climate change — 25-40% of greenhouse gases that contribute to climate change

And some key realities:

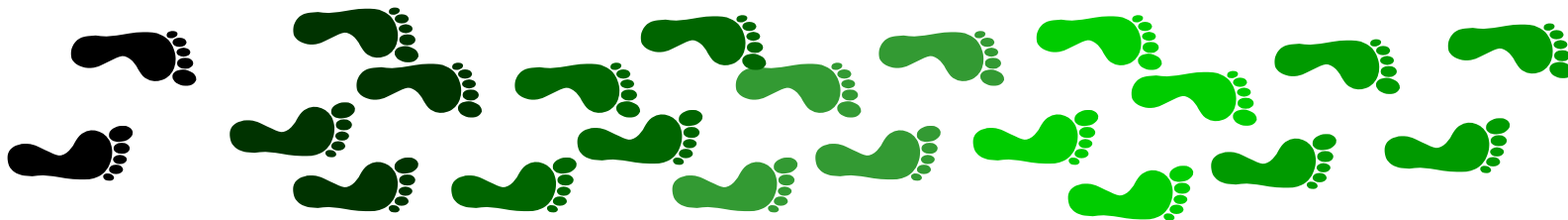
- Global food demand will double in 50 years
- Increased income (globally 2.4 times by 2050) will lead to increased consumption
- Per capita arable land globally is decreasing
- Renewables and biofuels are also a part of overall demand for agricultural production
- The poorest people on the planet have no land and can spend 75% of income on food and still go hungry
- Better production systems exist for virtually all crops, but they are often disseminated too slowly

Source: World Wildlife Fund - US



The need

- Companies throughout the supply chain are trying to define and reduce their sustainability footprints, field to table
- “Inside the farm gate” footprints are not yet captured in broader strategies
- To successfully meet the needs of a growing population, climate change, and increasing consumer expectations we need to be inclusive, not reward a few

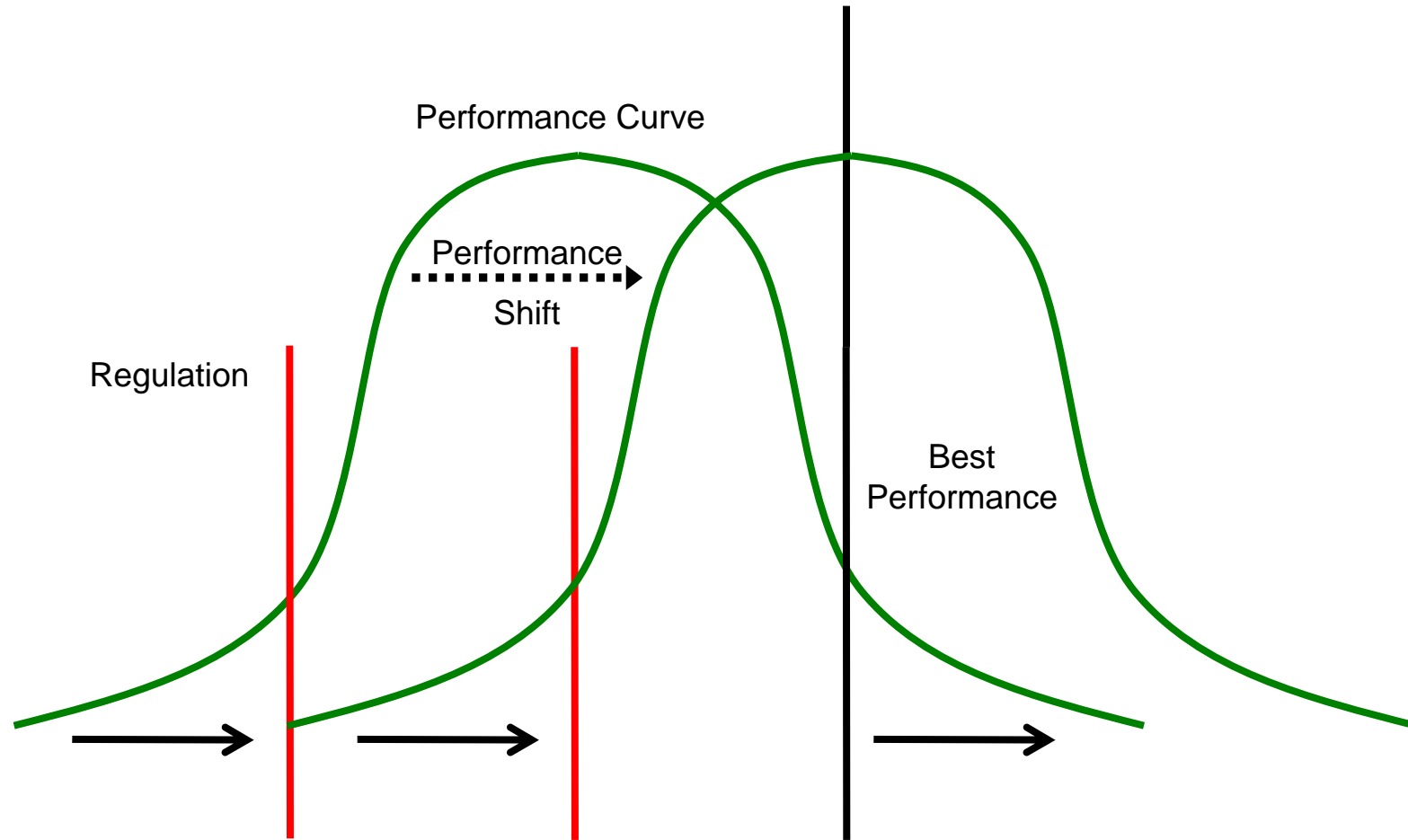


Premise: We can shift the discussion on sustainability in agriculture

- We can:
 - Focus on outcomes and results and allow producers to find the best way to achieve results through a full range of agricultural technology choices
 - Apply information at the grower level in support of larger, overarching goal of shifting the entire sustainability curve
 - Drive change where the opportunity is greatest – throughout conventional agriculture
 - Create pull through the production system
 - Use peer-reviewed science to identify goals and measure impacts, progress, and results



Accelerating better practice adoption



Source: World Wildlife Fund - US



Our working definition of sustainable agriculture

Sustainable agriculture will meet the needs of the present while improving the ability of future generations to meet their own needs by:

- Increasing productivity to meet future nutritional and fiber needs while decreasing impacts on the environment Improving human health through access to safe, nutritious food
- Improving the social and economic well being of agricultural communities

The initial work will focus on the first aspect of sustainable agriculture (first bullet above).



Steering Committee Members and Participants

- American Soybean Association
- Bunge Limited
- Cargill, Incorporated
- The Coca-Cola Company
- Conservation International
- Cotton, Inc
- DuPont
- Farm Bureau
- Fleishman-Hillard
- General Mills Inc.
- Grocery Manufacturers Association/Food Products Association
- McDonald's
- Mars, Inc.
- Monsanto
- National Association of Conservation Districts
- National Corn Growers Association
- National Cotton Council
- Syngenta
- The Nature Conservancy
- United Soybean Board
- World Wildlife Fund



Other expertise

- University of Wisconsin
- Michigan State University
- University of Arkansas
- NRCS
- USDA
- EPA



A Sustainability Index?

- ✓ Environmental Index
 - ✓ Topsoil/output
 - ✓ Water use/output
 - ✓ Inputs use/output
 - ✓ Land use/output
 - ✓ Energy use/output
- ✓ Overall acres converted to/from production
- ✓ Grower economic index
- ✓ Ability to meet global demand



Proposed outcomes

- **Better informed decision-making** throughout the agricultural supply chain from grower to consumer
- A **sustainability tool** for growers to map and improve their own performance
- An **index** based on measurable outcomes that can assist in setting performance goals
- **Documented improved performance** over time
- A **single platform that entities** throughout the supply chain can use in their sustainability efforts



Next Steps

- Meeting of Steering Committee next week
 - Agree upon pilot of grower tool and index
 - Formalize long-term structure
- Pilot sustainability tool with growers
- First full membership meeting late spring/early summer



Questions/Contact Information

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