

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

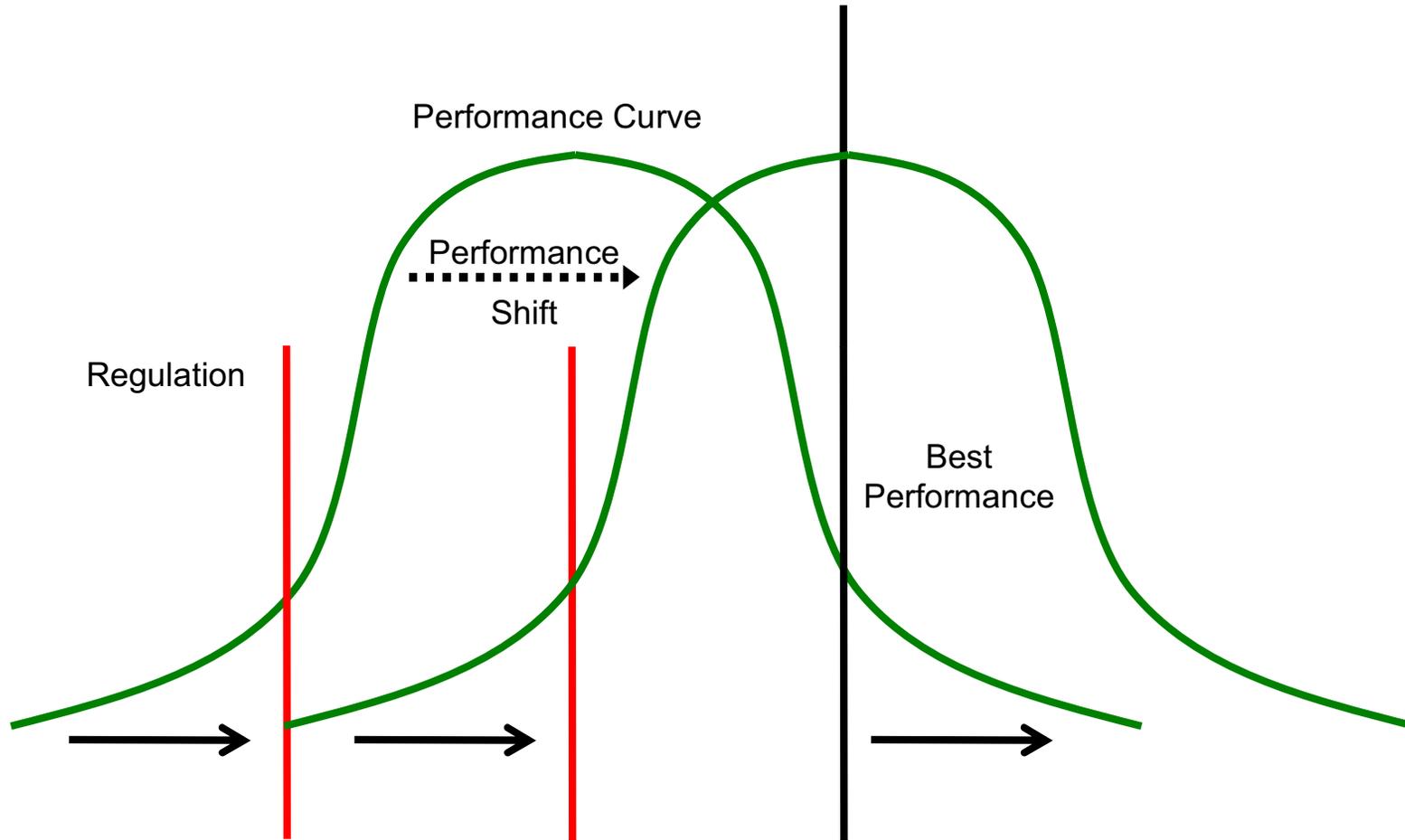


Premise: We can shift the discussion on sustainability in agriculture

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



Other expertise

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



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



A Sustainability Index

- ✓ Environmental Indicators
 - ✓ Land Use
 - ✓ Water Quality and Use
 - ✓ Soil
 - ✓ Energy
 - ✓ Climate
- ✓ Overall acres converted to/from production
- ✓ Grower economic index
- ✓ Ability to meet global demand



A Grower Tool

Enables Growers to:

- view individual performance on sustainability indicators
- compare themselves to national averages
- access resources for improving sustainability



The screenshot shows a web page with a green header and footer. The header contains logos for NCGA, Cotton, National Cotton Council of America, and ASA. The main content area has a white background with a green border. It features a 'WELCOME' section with a paragraph of text and a bulleted list of three outcomes: improving social and economic well-being, increasing productivity, and improving human health. To the right is a 'PARTICIPATE IN OUR PILOT' button over a landscape image. The footer includes the Teravista logo and copyright information.

WELCOME

Welcome to the Creating Sustainable Outcomes for Agriculture pilot! By participating in our pilot, you are demonstrating your commitment and leadership in continuing to make U.S. commodity agriculture more sustainable. You are also helping to ensure that this tool is as robust and useful to producers as possible. This initiative defines sustainable agriculture as meeting the needs of the present while improving the ability of future generations to meet their own needs. We aim to achieve this by focusing on these specific, critical outcomes:

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

Your participation allows you to demonstrate your care for the environment by being a part of a broad coalition to continue to improve agricultural sustainability, as defined above. We believe that the resulting outcomes will, in time, have a positive impact on each grower's livelihood. We further believe that, as a result of this effort, consumers will come to understand that niche products are not the only, or even the best, way to make agriculturally sustainable purchasing choices. The pilot asks about the activities on your farm, particularly as they relate to conservation and/or best management practices. Thank you in advance for your time and information. The pilot will take between 20 and 30 minutes to complete. Because we value your privacy, your individual responses will not be shared with anyone without your explicit permission. To view our privacy policy, please click on the link below. For further information about the initiative, please click on the "About this Program" button.

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Next Steps

- Conduct a peer review of the Sustainability Index
- Develop the second generation of the Grower Tool
- Continue engagement of organizations throughout the supply chain



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