Sustainability – US Processor Perspective

Thomas Hammer, President National Oilseed Processors Association U.S. Soy Sustainability Forum Chicago, IL June 3, 2015

NOPA Members

- 13 NOPA member companies
- Account for 95% of U.S. soybean crush
- Operate 63 processing plants in 19 states, including 57 that process soybeans
- Crush 1.645 billion bushels, comprising almost 52% of U.S. soybean farmers' production in 2013/14



NOPA Membership

- Ag Processing Inc.
- Archer Daniels Midland Company
- Bunge North America
- Cargill, Incorporated
- CHS
- Consolidated Grain and Barge Company
- Incobrasa Industries, Ltd.

- Louis Dreyfus
 Commodities
- Northstar Agri Industries
- Owensboro Grain
 Company
- Perdue Grain & Oilseed, LLC
- Riceland Foods, Inc.
- Zeeland Farm Soya

NOPA Vision

• NOPA favors a market-based trading environment that encourages the efficient production of an abundant, safe and highquality supply of oilseeds and oilseeds products for domestic and world consumers of food, feedingredients and renewable fuels.

The World Needs Sustainability Solutions that are Scalable

- Sustainability should be considered in the context of feeding 9.5 billion people by 2050.
- This means that we must think about sustainability on a global scale and focus our efforts on "solutions" that will have significant impact.



Global Soybean Consumption 2000/01 - 2015/16 and Trend to 2025/26



Sustainable Intensification

- Ensure that safe and abundant food/feed can be produced on a finite amount of farmland to meet the needs of the world's growing population.
- Develop/utilize proper tools to minimize agricultural inputs, soil erosion, energy & water usage, greenhouse gas emissions, etc.
- Embrace food/feed technology focusing on safety, consumer benefits, sustainability and feeding the world.
- Increase yields by leveraging technology, using best farming practices, and by "managing" nature.

Sustainable Agriculture

An integrated system of plant and animal production practices that will, over the long term: satisfy human food and fiber needs; enhance environmental quality and the natural resource base upon which the agricultural economy depends; make the most efficient use of nonrenewable resources and integrate natural biological cycles and controls; sustain the economic viability of farm operations; and enhance the quality of life for farmers and **society.** *(Source: International Food Information Council)*

Field to Market - Definition of Sustainable Agriculture

- Sustainable agriculture defined as "meeting the needs of the present while improving the ability of future generations to meet their own needs by focusing on these specific, critical outcomes:
 - Increasing agricultural productivity to meet future nutritional needs;
 - Improving the environment, including water, soil, and habitat;
 - Improving human health through access to safe, nutritious food;
 - Improving the social and economic well-being of agricultural communities.

Field to Market: What is it?

Field to Market is:

- A diverse alliance working to identify supply chain strategies to define, measure and promote continuous improvement for agriculture. The group provides collaborative leadership that is engaged in industry-wide dialogue, grounded in science and open to the full range of technology choices.
- Developing and piloting science and outcomes-based sustainability metrics, and tools at a variety of scales, to help measure and advance continuous improvement. *The Field to Market 2012 Environmental and Socioeconomic Indicators Report* analyzes sustainability trends over time at the national scale for U.S. corn, cotton, potato, rice, soybean and wheat production. Using publicly available data, the report evaluates performance over three decades.



Unparalleled Collaboration

Field to Market is comprised of more than 65 members representing all facets of the U.S. agricultural supply chain, with member companies employing more than 3.9 million people and representing combined revenues totaling over \$1.3 trillion.



Field to Market Goals (adopted in 2014)

- Land Use Sustained improvement of land use efficiency by increasing productivity on U.S. cropland, conserving native habitat, and enhancing landscape quality.
- Greenhouse Gases Sustained reduction in greenhouse gas emissions from U.S. cropland per unit of output.
- Water Quality Sustained contribution to solving regional water quality problems as evidenced by reductions in sediment, phosphorus, nitrogen, and pesticide loads from U.S. cropland.
- Soil Conservation Sustained reduction in soil erosion to tolerable levels or below on all U.S. cropland.
- Irrigation Water Use Sustained contribution to solving regional water scarcity problems through continual improvement in irrigation water use efficiency and conservation.
- Energy Use Sustained improvement in energy use efficiency from U.S. crop production.

To achieve these goals, Field to Market will seek to engage 20% of productive acres of U.S. commodity crop production in its program by 2020.

U.S. Soy Sustainability Success Story: 1980 –2011 *(Field to Market)*

Trends in U.S. soybean production were as follows:

- Yield: Total soybean production increased (+96%) and yield (bushels per planted acre) increased (+55%).
- Resource efficiency (per bushel): Soybeans improved on all measures of resource "efficiency," with decreases in per bushel land use (-35%), soil erosion (-66%), irrigation water applied (-42%), energy use (-48%), and greenhouse gas emissions (-49%).
- Resource use/impact per acre: Soybeans improved (decreased) per acre soil erosion (-41%), irrigation water applied (-9%), energy use (-17%), and greenhouse gas emissions (-18%). Improvements in per acre soil erosion occurred primarily in the first half of the study period; per acre soil erosion has remained relatively constant since the mid-1990s.
- Total resource use/impact: Soybeans improved (decreased) total soil erosion (-28%) and increased total land use (+24%) and irrigation water applied (+271%);soybeans experienced slight increases in total energy use (+3%) and greenhouse gas emissions (+1%). Improvements in total soil erosion occurred primarily in the first half of the study period, with more recent trends indicating a slight increase in total annual erosion.

Common Sustainability Concerns – Expressed by Customers

- Increasing requirements for sustainable supply chains in some customers segments (See next chart)
- Sustainability demands on a wide breadth of environmental and social issues.
- New emerging issues (e.g., water pollution, human rights)
- Increasing expectations from customers and NGOs for industry leadership
- Confusion over differing "Global Sustainability Platforms" [e.g., Consumer Goods Forum, International Sustainability & Carbon Certification (ISCC) and Round Table on Responsible Soy (RTRS)]

Customer	Increasing Requirements for Sustainable Supply Chains
Coca-Cola	 Reduce GHG emissions across value chain by 25% by 2020 Sustainably source key agricultural ingredients by 2020 Expand acreage in Field to Market to 1 Million acres by 2020
General Mills	 Sustainably source 100% of 10 priority ingredients by 2020 Expand acreage in Field to Market to 2.5 Million acres by 2015 Reduce GHG emissions in fertilizer management
Unilever	 Halve GHG impact of our products across lifecycle by 2020 Source 100% of agricultural raw materials sustainably by 2020 Halve the environmental footprint of the making and use of our products as we grow our business by 2020
Walmart	 Reduce and optimize resources required to produce that food and driving more transparency into its supply chain Fertilizer optimization on 14 million acres of U.S. farmland by 2020
Kellogg's	 Responsibly source top 10 ingredients and raw materials by 2020 Drive agricultural conservation management in the Midwest corn belt

Global Trends for Certified Sustainable Agricultural Products

- Consumer Goods Companies (Customers):
 - Have made public goals to purchase sustainable products and their sustainability commitments continue to grow.
 - Insisting producers and processor/suppliers provide "sustainable" products.
 - Insist consumers cannot discern the sustainable value in products
 - State that sustainability is a "moral" issue that should not involve a "premium"
 - Insist that producers and processor/suppliers "do the right thing"
- Producers (Growers/Farmers):
 - Expect a fair, market-based premium for implementing certification systems
 - Finding lower demand than expected
- Processors (Suppliers):
 - Pressure on the middle of the supply chain for "sustainable solutions" to meet a plethora of standards continues to grow.
 - Stuck in the middle (growers want incentive; customers want it free)

Global "Fears" with Certified Sustainable Agricultural Products

- Consumer Goods Companies (Customers):
 - Fear they will not be able to meet their publicly stated commitments
 - Fear they will have to pay a higher cost for certified sustainable products
 - Fear their customers will move to lower-cost options
- Producers (Growers/Farmers):
 - Fear there will be no market for higher-cost sustainably grown products
 - Fear buyers will purchase lower-cost options
- Processors (Suppliers):

- Fear they will have to offer premium to growers with no market to cover higher costs
- Fear they will not be rewarded for commitments to sustainable agriculture
- Fear customers will purchase lower-cost options

Proactive Approach: U.S. Soy Sustainability Assurance Protocol

- Describes the regulations, processes and management practices that ensure sustainable soybean production and provides a national measurement system of the positive environmental outcomes by soy producers.
- The Soy Export Sustainability, LLC will provide shipment-specific recordkeeping and documentation information for all U.S. soy and ensure proper accounting of mass balance of U.S. soy compliant with this Protocol up to the point where certificates are issued for batches of compliant soybeans at point of export.

U.S. Soybeans You Can Trust

- U.S. soybeans & meal/oil are the most sustainable in the world.
- U.S. laws & regulations governing farmers, grain handlers, processors & exporters are the most rigorous in the world.
- U.S. soy is the best overall value in the world.



Sustainability = Opportunity

- Do the right thing: This is closely aligned with NOPA's Vision statement.
- Become the supplier of first choice: Our domestic and foreign customers and their consumers are increasingly concerned about sustainability. Our members must aim to become "the most trusted suppliers of sustainable soybean products."
- Grow our business: The growing importance of sustainability gives us opportunities to innovate, rethink how we do business, and grow our business for soy and soy-based products in new directions.

Engaging in the Conversation

- U.S. soy growers, processors & exporters have a great success story to tell.
- We must engage in the sustainability conversation – or people that don't understand our business will set the rules.
- Communicate the facts clearly and concisely.
- Key message: Solutions must be economically sensible and scalable





Comments or Questions

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