U.S. Dairy Sustainability Commitment
Update to C-AGG

Matthew Welch, Manager Sustainable Business Development
July 21, 2011
We commit to being leaders in sustainability, ensuring the health and well-being of our planet, communities, consumers and the industry.
From farm to retail
Success to date

45 Founding members
CONVENED SUSTAINABILITY COUNCIL

25% GHG reduction
ESTABLISHED AT SUSTAINABILITY SUMMIT

~2% of U.S. GHG Emissions
COMPLETED LIFECYCLE ASSESSMENT OF FLUID MILK

$4.6 Million value
LAUNCHED INNOVATION PROJECTS

2009 USDA MOU
FORGED STRATEGIC PARTNERSHIPS
LCA – Start with Carbon, Move to Water

Almost 70% of all available freshwater is used for agriculture.

Why water?
- Water issues
  - local at watershed level
  - vary in space and time
  - have social and economic nature

A survey of top global companies* found:
- 92% agree that a water crisis is looming
- 70% believe that the risks of water scarcity are equal to those of carbon

“If climate change is the shark, water is its teeth”
-- Paul Dickinson, CEO Carbon Disclosure Project

* - WSP Environment & Energy, September 2009
Water Impact Assessment

Current Findings – Completed Scan

■ Where there is national water stress, the stress applies equally on dairy

■ Feed dominates the water impact for dairy
  □ Green water matters
  □ Source of feed matters

■ Blue water will induce water stress impact

■ Water quality
  □ N – impact in sea water eutrophication
  □ P – impact in fresh water eutrophication
  □ Grey water release will induce water quality reduction
Dairy Farm Smart

Dairy Farm Stewardship Toolkit
- Evaluate production techniques
- Generate analysis of stewardship practices
- Identify potential improvements to management practices
- Increase profitability or reduce costs on the farm
- Communicate to stakeholders

$1.1 Million USDA Grant
$2.3 Million Total Project Cost
Farm Energy Efficiency

3 Step Farmer “Call-to-Action”

“SaveEnergy Finder” Tool

Act now! Take 3 steps to farm energy efficiency

1. Conduct an audit.
   Cut costs by saving 10-35% in energy use.

2. Find funding.
   View programs, funding and services in your state.

3. Qualify for equipment.
   Completed an audit? See if you qualify for funded upgrades.

Click here to get started

Or...Just call an expert 1-800-732-1399

SaveEnergy Finder connects you to farm energy opportunities in your state.
Goal: 25% reduction in methane per unit of milk produced by the U.S. dairy industry

Dairy herds

Individual cows

Rumen function

Genetic selection
  - Reproduction
  - Animal health
  - Management

Modifier compounds
  - Feed quality
  - Feed ingredients

Microbial genomics
  - Microbial ecology

Modeling & Refinement of methane measurements
Dairy Power

A Business Model for Sustainable Dairy Digester Systems

Clean Renewable Energy
- 5 million kWh to power nearly 700 homes
- $400,000 annual revenue

Renewable Energy Credits (REC)
- 5 million RECs
- $50,000 annual revenue

Carbon Offsets
- 11,000 tons GHG destroyed
- $85,000 annual revenue

Reduce waste
Create clean renewable energy
Advance sustainable products

Crop Fertilizer
- $300,000 annual avoided cost

Bedding
- $100,000 annual avoided cost

Anaerobic Digester
- 750 kilowatt system

Manure

Rich Garden Soil Amendment
- 20,000 cubic yards of digestor fiber
- $160,000 annual revenue

3,000 Lactating Dairy Cows

Milk
- Annual production of 60 million pounds/7 million gallons of milk

Nutrient–Rich Dairy Products

Organic Waste
- 104 tons of organic waste annually (2 tons per week)

For more information go to USDairy.com/Sustainability or contact InnovationCenter@USDairy.com
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U.S. DAIRY SUSTAINABILITY COMMITMENT

REAL PEOPLE/products...REAL PLANET

IM
Dairy Fleet Smart

1. What has been done already by EPA:
   Benchmarking
2. What is proposed:
   Combined model with improvement strategies

Characteristics of model:
- Information about amount to be reduced to meet emission targets of 25% GHG reduction by 2020.
- Guidelines to reduce – Variety of strategies displayed
- Location and company specific – Eg. Route optimization, Technology addition etc.
- Choice of options based on amount reduced and cost incurred
# Sustainability Awards Program

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| **Outstanding Dairy Farm Sustainability Award** | - Recognizes outstanding efforts by a dairy farm operation  
- Three farms will be honored to recognize the range and diversity of successful dairy farm businesses and operations  
- Honorable mentions, at discretion of judges |
| **Outstanding Dairy Processing & Manufacturing Sustainability Award** | - Recognizes outstanding efforts by a dairy processor or manufacturer  
  - Milk, cheese, ice cream, etc.  
- Honorable mentions, at discretion of judges |
| **Outstanding Achievement in Energy** | - Energy Conservation and/or Energy Generation  
- Applies across the dairy supply chain to:  
  - Any farm or business in the supply chain  
  - Any supplier to a dairy farm or business  
- Honorable mentions, at discretion of judges |
A look ahead

- Develop scientific base through life cycle assessments (LCA)
- Facilitate GHG mitigation and innovation projects across value chain
- Enroll and engage dairy producers and thought leaders
- Shape sector reporting
- Accelerate the commitment
Questions?

- Learn more at [www.usdairey.com/sustainability](http://www.usdairey.com/sustainability)
- Feel free to contact us with any questions or comments: [Matthew.Welch@RoseDMI.com](mailto:Matthew.Welch@RoseDMI.com)
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