Developing a Sustainability Program
Learning Objectives

- Articulate demand for sustainability
- Review products product lineup
- Assemble a suite of products and services
- Build an internal communication strategy
- Summarize accomplishments
- Promote sustainability services to producers and the community
The Demand for Sustainable Agricultural Products

Chapter 1
Growing Demand for Sustainability

Consumers are increasingly:
• Critical of ag production method
• Demanding transparency
• Seeking out products that align with their values
Growing Demand for Sustainability

People born after 1981 make up 25% of the population and are increasingly asking questions about where and how their food is produced.

ENVIRONMENTAL IMPACT = QUALITY
Food manufacturer sustainability goals

- Reducing environmental impact
- Sustainably sourcing raw agricultural materials
- Reducing water use
- Reducing greenhouse gases
Are you ready?
Discussion
Getting Started

- Make the decision
- Review organizational mission and vision
- Inventory menu of services and products
- Assess employee knowledge, skills and abilities
- Develop a communication plan
Ag Inputs Impact the Environment

- Biodiversity
- Energy Use
- Greenhouse Gases
- Irrigation Water Use
- Land Use
- Soil Carbon
- Soil Conservation
- Water Quality
Connecting Products and Services to Environmental Outcomes Example 1: Irrigation

- irrigation audit
- flow meters
- soil moisture sensors
- scheduling software
- delivery systems

Less Irrigation Water Applied
Reduced Energy Use for Pumping
Less CO2 Released into Atmosphere
Connecting to Environmental Outcomes Example 2: Crop Nutrition and 4R Nutrient Stewardship

<table>
<thead>
<tr>
<th>4R Nutrient Stewardship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom Nutrient Mixes</td>
</tr>
<tr>
<td>Precision Application</td>
</tr>
<tr>
<td>Nitrogen Stabilizers</td>
</tr>
</tbody>
</table>

Optimal Nutrient Uptake by Crop

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Less nitrogen volatilization</td>
</tr>
<tr>
<td>Less nutrient run-off</td>
</tr>
<tr>
<td>Less loss through tile drains</td>
</tr>
<tr>
<td>Vigorous, healthy crops</td>
</tr>
</tbody>
</table>

Better Environmental Outcomes

| Land Use | Energy Use | Greenhouse Gases | Water Quality | Biodiversity |
|----------|------------|------------------|---------------|--------------|-------------|

- Less nitrogen volatilization
- Less nutrient runoff
- Less loss through tile drains
- Vigorous, healthy crops

4R Nutrient Stewardship:
- Custom Nutrient Mixes
- Precision Application
- Nitrogen Stabilizers

Connecting to Environmental Outcomes:
- Land Use
- Energy Use
- Greenhouse Gases
- Water Quality
- Biodiversity
Connecting Products and Services to Environmental Outcomes

Better Environmental Outcomes

Soil and Water Retained in Field

Land Prep
- Strip tillage equipment
- Drainage water management
- Land contouring/terracing

Soil Conservation, Water Quality, Irrigation Water Use, Energy Use, Greenhouse Gases
Better Outcomes

Integrated Pest Management

Crop Protection Services

- Biodiversity
- Land Use
- Soil Conservation
- Water Quality
- Irrigation Water Use
- Energy Use
- Greenhouse Gases

- Crop Scouting
- Pathology Testing
- Soft Chemistries
Connecting Products and Services to Environmental Outcomes
Exercise
Discussion
Building an Internal Communication Strategy

Chapter 3
Build an Internal Communication Strategy

- Align with company values, mission, and vision
- Address why and how it will work
- Include all business units from the start
Assess Staff Expertise and Interest

- Cover crops
- Irrigation technology
- Precision ag
- Data management
- Soil Health
- Water Quality
Staff Professional Development and Continuing Education
Discussion
Summarize Sustainability
Accomplishments

Chapter 4
Summarize Accomplishments with Measurement Tools

Measure, document, demonstrate environmental outcomes
Summarize Accomplishments with Customer Testimonials

- Create buy-in
- Growers like to hear from other growers
- Collect success stories
- Ask permission to cite them

“My CCA helped me stop rill erosion on my hilly fields. As a result, I’m saving $500 on repairs alone every spring.”
Summarize Accomplishments by Tracking Practice Adoption

Major Product and Service Trends 2012-2017 in the Sandusky River Watershed

- Rotational Sampling:
  - 2012: 34%
  - 2013: 27%
  - 2014: 22%
  - 2015: 18%
  - 2016: 21%
  - 2017: 25%

- Weather Was Considered:
  - 2012: 42%
  - 2013: 40%
  - 2014: 25%
  - 2015: 22%
  - 2016: 17%
  - 2017: 18%

- Cover Crops:
  - 2012: 5%
  - 2013: 9%
  - 2014: 10%
  - 2015: 18%
  - 2016: 17%
  - 2017: 25%

- VRT P:
  - 2012: 70%
  - 2013: 5%
  - 2014: 25%
  - 2015: 67%
  - 2016: 67%
  - 2017: 67%
Track Accomplishments by Offering Evidence of Environmental Benefits

<table>
<thead>
<tr>
<th>Product/Service</th>
<th>Total P loss reduction (lbs/acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover crops</td>
<td>0.63</td>
</tr>
<tr>
<td>Soil tests/apply at Extension recs</td>
<td>0.53</td>
</tr>
<tr>
<td>Variable rate P applications</td>
<td>0.59</td>
</tr>
<tr>
<td>Custom banding</td>
<td>0.39</td>
</tr>
<tr>
<td>Apply in rooting zone (strip till)</td>
<td>0.68</td>
</tr>
<tr>
<td>Notify farmers after P applications to lightly incorporate (2-3”)</td>
<td>1.04</td>
</tr>
<tr>
<td>Apply for following crop only</td>
<td>0.10</td>
</tr>
</tbody>
</table>
Summarize Accomplishments by Making the Economic Case

Use local data

Data sources:

- Extension
- USDA-ARS
- Customer surveys

### TABLE 6. 2016 Changes in Income Attributed to Cover Crops, Diaz Farm, $/acre

<table>
<thead>
<tr>
<th>Category</th>
<th>$/acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planting</td>
<td>-27.91</td>
</tr>
<tr>
<td>Termination</td>
<td>1.28</td>
</tr>
<tr>
<td>Fertilizer Application</td>
<td>0.00</td>
</tr>
<tr>
<td>Erosion-Related Repairs</td>
<td>16.33</td>
</tr>
<tr>
<td>Learning Activities</td>
<td>-6.40</td>
</tr>
<tr>
<td>Additional Scouting</td>
<td>-2.00</td>
</tr>
<tr>
<td>Change in Corn Yield</td>
<td>37.70</td>
</tr>
<tr>
<td><strong>2016 NET CHANGE IN INCOME</strong></td>
<td><strong>19.00</strong></td>
</tr>
</tbody>
</table>

From Datu Research Case Study: Diaz Farm
Discussion
Base Approach on Customer Perspective

- Beliefs, opinions and assumptions about sustainability
- Existing knowledge and previous experiences
- Personal values and top-priority concerns
Select Appropriate Format

- Brochures
- Grower meetings
- Roundtable discussions
- Newsletters
- Press releases
- Local conferences
- Social media
- Videos
Develop Printed Marketing Materials

- Direct benefits to grower
- Steps for adoption
- Resources for support
- Shared responsibility

DEMONSTRATE LEADERSHIP THROUGH SERVICE

Photo: NRCS
Video Farmer Testimonial: Equipment
Video Testimonial: Cover Crop Seed
Video Testimonial: Nitrogen Stabilizer
Discussion
Ag Retailer Case Studies

Chapter 6
Case Study: Ceres Solutions

Cover Crops Products and Services Offered:

• Advising services
• Selling cover crop seeds
• Seeding and termination services
• Adjusting nutrient management plans
• Soil sampling
Case Study: Ceres Solutions

Keys to Success:
• Train staff
• Market the program
• Offer decision support
• Build partnerships
Case Study: Sunrise Cooperative, Inc.

- Cover crop seeds
- Management and termination
- Research
- Grower meetings
- Online videos

Farmer owned ag, grain, feed, crop insurance and energy coop
Case Study: Sunrise Cooperative, Inc. and Cover Crops

- Make no promises
- Understand customer goals
- Communicate with local NRCS
- Educate growers
Discussion
Review

- Increasing consumer demand for sustainable products
- Added value for growers and input providers
- Shift - not total overhaul
- Engage staff from the beginning
Thank you!

Sustainability Programming for Ag Retailers and CCAs (SPARC)

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