The Farmer Business Case for Sustainability
Learning Objectives

• Communicate the value of sustainability to customers
• Respond to producer questions about demand
• Highlight examples of successful farmers
• Forecast potential economic benefits
Finding Value in Sustainable Agriculture

- Reduce risk with technical support
- Increase operational efficiency
- Connect to financial assistance programs
- Engage in supply chain sustainability projects
- Protect freedom to operate
Reduce Risk with Technical Support
Chapter 1
Example: Grower wants to add cover crops to rotation. Guidance needed to:
• Select appropriate seed
• Establishing healthy stands
• Terminate cover crop
Reduce Risk With Technical Support

Other examples
- Reduced tillage
- Variable rate technology
- Irrigation technology
Reduce Risk With Technical Support

You are not alone
• American Society of Agronomy
• Conservation Districts
• NRCS
• Cooperative Extension
Discussion
Increase Operational Efficiency: Supporting Research

Chapter 2
Increasing Operational Efficiency: Supporting Research

USDA-ERS Study: Precision technology reduces input costs

Most corn and soy growers already use yield monitors.
Increasing Operational Efficiency: Supporting Research

USDA-ERS Study: Precision technology reduces input costs

<table>
<thead>
<tr>
<th>Technology</th>
<th>Cost (in $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield mapping</td>
<td>25.01</td>
</tr>
<tr>
<td>GPS soil mapping</td>
<td>13.45</td>
</tr>
<tr>
<td>Guidance system</td>
<td>14.98</td>
</tr>
<tr>
<td>VRT combined with Yield map</td>
<td>21.87</td>
</tr>
<tr>
<td>VRT combined with Soil map</td>
<td>20.56</td>
</tr>
</tbody>
</table>
Increasing Operational Efficiency: Supporting Research

Texas A & M Study: Conservation Tillage Reduces Costs and Boosts Yields

No-Till Farming Practices Offer Cost Savings and More Profit Potential to Cotton and Grain Sorghum Producers

Mac Young
Janie Foster
Josh McGinty
Stevens Klose
Andrea Maeda

FARM Assistance Focus 2018-2
March 2018
Department of Agricultural Economics
Texas A&M AgriLife Extension Service
farmsistance.tamu.edu
Increasing Operational Efficiency: Supporting Research - Texas A & M Study

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Cotton (lbs.)</th>
<th>Grain Sorghum (cwt.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Conventional ($/Acre)</td>
<td>No-Till ($/Acre)</td>
</tr>
<tr>
<td>Herbicides (1)</td>
<td>41.24</td>
<td>51.24</td>
</tr>
<tr>
<td>Insecticides</td>
<td>27.33</td>
<td>27.35</td>
</tr>
<tr>
<td>Custom (2)</td>
<td>54.48</td>
<td>32.08</td>
</tr>
<tr>
<td>Harvest (2,3)</td>
<td>155.55</td>
<td>171.36</td>
</tr>
<tr>
<td>Boll Weevil</td>
<td>4.27</td>
<td>4.70</td>
</tr>
<tr>
<td>Labor</td>
<td>13.18</td>
<td>7.72</td>
</tr>
</tbody>
</table>

(1) Includes defoliants for cotton.
(2) Assumes cotton is custom harvested.
(3) Includes ginning for cotton; hauling and drying for grain sorghum.
### Table 1: Cotton and Grain Sorghum Conventional and No-Till Yields Per Acre, Corpus Christi Research and Extension Center

<table>
<thead>
<tr>
<th>Year</th>
<th>Cotton (lbs.)</th>
<th>Grain Sorghum (cwt.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Conventional</td>
<td>No-Till</td>
</tr>
<tr>
<td>2011</td>
<td>266</td>
<td>277</td>
</tr>
<tr>
<td>2012</td>
<td>428</td>
<td>415</td>
</tr>
<tr>
<td>2013</td>
<td>22</td>
<td>190</td>
</tr>
<tr>
<td>2014</td>
<td>517</td>
<td>565</td>
</tr>
<tr>
<td>2015</td>
<td>916</td>
<td>1,058</td>
</tr>
<tr>
<td>2016</td>
<td>953</td>
<td>910</td>
</tr>
<tr>
<td>2017</td>
<td>1,168</td>
<td>1,286</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>610</strong></td>
<td><strong>672</strong></td>
</tr>
</tbody>
</table>

#### Case Study Projected Average Yields

<table>
<thead>
<tr>
<th>Year</th>
<th>Cotton (lbs.)</th>
<th>Grain Sorghum (cwt.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>610</td>
<td>672</td>
</tr>
<tr>
<td>2027</td>
<td>640</td>
<td>705</td>
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</tbody>
</table>
Discussion
Increase Operational Efficiency: Grower Testimonials

Chapter 3
Profiles In Soil Health
Jared Questad,
Baltic, SD
Soil Health Partnership: Farmer Dave Moss
Discussion
Increase Operational Efficiency: Case Studies
Chapter 4
Increase Operational Efficiency: Case Studies

National Association of Conservation Districts and Datu Research Case Study: Diaz Farm Benefits from No-Till and Cover Crops
Increase Operational Efficiency: Case Studies

**FIGURE 2.** 2012-16 Overall Budget Impact of Cover Crops, Diaz Farm, $/acre

<table>
<thead>
<tr>
<th>Year</th>
<th>Positive Impact</th>
<th>Negative Impact</th>
<th>Net Impact</th>
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</thead>
<tbody>
<tr>
<td>2012</td>
<td>$-83.23</td>
<td></td>
<td>$-83.23</td>
</tr>
<tr>
<td>2013</td>
<td>$-60.00</td>
<td>$-60.00</td>
<td>$-120.00</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td>$30.04</td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td>$149.91</td>
</tr>
<tr>
<td>2016</td>
<td>$59.00</td>
<td></td>
<td>$59.00</td>
</tr>
</tbody>
</table>
Increase Operational Efficiency: Case Studies

National Association of Conservation Districts and Datu Research Case Study: No-Till Makes a Positive Impact on Kuhn’s Family Farm
Increase Operational Efficiency: Case Studies

**FIGURE 1.** Overall Budget Impact of No-till in 1994, 2004, and 2016, K.F. Farm, $/acre

Kuhn Family Farm
Discussion
Other Opportunities
Chapter 5
Other Opportunities: Financial Assistance and Incentives

USDA-NRCS

- Ag Management Assistance Program (AMA)
- Conservation Stewardship Program (CSP)
- Environmental Quality Incentives Program (EQIP)
Other Opportunities: Expanding Market Access

Unilever Sustainable Soy Project

- Iowa farmers eligible for $10/A, up to 10% total farmed acres
- Remaining 90% eligible for $5/ cover cropped acre
Other Opportunities: Protect Freedom to Operate

- Protect legacy farms
- Keep growers on the land
- Proactively reduce likelihood of new regulations
Discussion
Review

- Communicate the value of sustainability.
- Respond to grower questions about the demand for sustainably sourced products.
- Point to farmers that have successfully implemented practices that improve sustainability outcomes on their farm.
- Forecast the potential economic benefits to growers of adjusting the farm management system.
Discussion
Thank you!

Sustainability Programming for Ag Retailers and CCAs (SPARC)

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