Communicating Sustainability to Growers

Mike Wilson CCA 4R NMS/ RMS/ PASp.
Wabash Valley Service Company
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Sustainability:

What does modern Sustainability look like?

How do we encourage Grower buy in?

What is the end goal of Sustainability?
Grower concepts of Sustainability

• Low
• Input
• Sustainable
• Agriculture
What L.I.S.A. looked like
Sustainability Today

• Balancing the economic, social and environmental interests of a diverse group of stakeholders when considering the production, transportation, processing and distribution of our food source.

• These stakeholder groups include Growers, Processors, Distributors, Retailers and Consumers. Sustainability has to work for all or it is bound to fail.
The Keys to introducing Sustainability

• Education

• Communication

• Cooperation
Education
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April 20 spike in nitrate loss correlates with a rainy period that began first week of April following UAN Pre-plant application.
The S.T.A.R. (Saving Tomorrow’s Agriculture Resources) evaluation system assigns points for each cropping, tillage, nutrient application and soil conservation activity used on individual fields. Those point values were determined by a “science” committee based on their analysis of recommended practices contribution to the goals. The total points are used in a scale to determine a rating of 1 to 5 Stars for each individual field.
Education

15. Section 12: From an environmental perspective, it would be best if NO nitrogen fertilizer was applied to any crop because of potential negative consequences to water quality. However, most crops require additional nitrogen inputs. Therefore, nitrogen is best applied in the spring and/or summer, as close as possible to the time the crop will use it, minimizing or eliminating nutrient losses from the field.
## Tomatoes FL

Environmental Metrics: Increased Nutrient Use Efficiency

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>4R Practice Level</td>
<td>Basic</td>
<td>Basic</td>
<td>Intermediate</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Tomato Yield (boxes/ac)</td>
<td>650</td>
<td>580</td>
<td>700</td>
<td>650</td>
</tr>
<tr>
<td>N Application Rate (lbs/ac)</td>
<td>911.9</td>
<td>911.9</td>
<td>361.8</td>
<td>361.8</td>
</tr>
<tr>
<td>Nitrogen Use Efficiency (lb N applied/boxes tomatoes)</td>
<td>1.4</td>
<td>1.57</td>
<td>0.52</td>
<td>0.56</td>
</tr>
<tr>
<td>N Balance (lb N applied – lb N harvested)</td>
<td>405.9</td>
<td>459.5</td>
<td>-184.2</td>
<td>-145.2</td>
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</tbody>
</table>
Cost decreased from 2017 to 2018 with the change from multiple in-season nitrogen applications with a sprayer to injected nitrogen through fertigation. The amount of nitrogen applied was slightly lower and the cost of the application with fertigation was also lower.
Between 2014 and 2017 the farm changed equipment for planting and in-season nutrient applications and implemented variable rate fertilizer applications based on zone soil sampling. Average cost per acre in 2014 for nutrient application was $107. In 2017, cost averaged $76. The impact of variable rate applications was compared across four fields where cotton was grown in 2017. Decreases among the fields in 2017 were related to lower fertilizer costs and lower variable costs with equipment.
Communication

• Tell the Sustainability Story

• Look at successes locally, nationally and globally.

• Put a plan together to promote what sustainability looks like in your geography and run with it.
Communication

Growers need to know that Sustainability includes their interests as well.

All Stakeholders have a seat at the table.

Some Growers see this as a threat, that it will lead to more regulation.

How do we address that?
Communication

• Share Sustainability success stories on Social media.

• Get your local youth organizations involved with your efforts i.e. FFA, 4H, high school and college environmental groups.

• Use the resources you have: Extension, Farm Bureau, TNC, NRCS, SWCD, etc.
Local Cooperation

The Wabash Valley Stewardship Alliance is a cooperative effort of 9 county Farm Bureau managers, Wabash Valley College, Wabash Valley Service Company and Growers. We strive to improve conservation education in Southeastern Illinois by holding conferences, field days and seminars on ways to comply with the Illinois Nutrient Loss Reduction Strategy.
Regional Cooperation

• The Alphabet Soup Partnership
National Cooperation
Summary

• Sustainability is not about maintaining it is about improving.
• Improving Growers ROI
• Improving our communities economy
• Improving our environmental foot print
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