Extending Precision Technologies in Oklahoma

Brian Arnall
Presented at ICPA
A to Z 7-20-2010
OK Ag Snapshot

<table>
<thead>
<tr>
<th>Crop</th>
<th>Plant (mill/ac)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>5.2</td>
<td>3.9 harvested</td>
</tr>
<tr>
<td>corn</td>
<td>.370</td>
<td>50% irrigated</td>
</tr>
<tr>
<td>Soybean</td>
<td>.480</td>
<td>Sig Double crop</td>
</tr>
<tr>
<td>Sorghum</td>
<td>.260</td>
<td></td>
</tr>
<tr>
<td>Sunflower</td>
<td>.014</td>
<td></td>
</tr>
</tbody>
</table>

- 10.5 million ac crop landed planted 07
- Survey: 60% Ok under Mono-crop systems (31% of which no-till)
- Average age in 2007 55.3
- Average Farm size 406 ac
Extension Efforts in OK

- N-Rich Strips
- SBNRC
- No-till
- Partners in Research
N Rich Strip Adoption

- 2003: OSU applied 62 NRS
- 2004: 300 NRS in Farmers Fields
- 2005: SBNRC released, 1000 NRS
- 2006: OSU applied 568 NRS
  1,500 NRS by 1 cooperator alone
  estimated 230,000 acres under NRS
- 2007: 25 county educators reported having NRS
- 2009: Survey reported 4,000 NRS
Current Status

• N-Rich Strip: *Approx* 400,000 acres wheat
• NRCS support through EQIP
• NUE Web: 50 hits/day
• No-till: 29% Surveyed
Evolution of Multi rate NRS
Partners in Research Survey

- 8 prod/ext
- Small plot 4.3
- Large plot 9.25
- Own operation 9.9
- Trial size influence decision 100% yes
- Preference on own land 100% large scale
- Did the experience change your practice 100% yes
The Horses mouth: Producer

• Positive Aspects:
  – Staff in the field across the state.
  – Working Relationship between; state-county-producer.

• Negative Aspects:
  – “If it ain’t broke, don’t fix it”. Just because it is better doesn’t mean anything. Accustomed to magic fixes
  – “University” assuming producers would believe the results.

• Thoughts on Adoption: **TRUST**
  – “Technology that is not adopted quickly is either not trusted or the results are unclear and/or ambiguous. Results are clear so one option remains.”
  – If the farmer trust the messenger, he will listen and the door will be opened.
The Horses mouth: County AE

• Positive Aspects:
  – Supplies and training made available to County.
  – State staff in the field.
  – Working Relationship between; state-county-producer.
  – Involving the Producers “Partners in Research”
  – Ask for their advice.

• Thoughts on Adoption:
  – Fear of yield loss
  – Lack of industry buy-in
The Horses mouth: County AE

• Positive Aspects:
  – Supplies and training made available to County.
  – Involving the Producers “Partners in Research”
  – Conferences

• Thoughts on Adoption :
  – Stigma of Precision Ag and No-till
  – “Complicated calculations”
  – Lack of industry buy-in
  – Traditional techniques are easy.
    • 1) Fertilize and plant wheat
    • 2) Spend winter in coffee shop & feeding stockers
    • 3) Pull off cattle and make $
    • 4) Harvest wheat and save seed
    • 5) Start again.
The Horses mouth: Area Agron

• Positive Aspects:
  – Supplies and training made available.
  – Educated industry.
  – Hired the right staff.

• Negative Aspects:
  – Timing and Grazing conflicts.
  – Traditions in OK (NT)
  – Measurement of success is yield “wheat is the worst crop to measure advantages”
  – Area Agronomist really likes conventional wheat production.
Regional Aspect

• SC vs NC “The Kinder Kodesh paradigm”
• While one begs neighbors to utilize no-till and SBNRC with no success the other has land owners approach him to farm their ground.
Trying something new

- 1/3 of the IT have tried no-till. Of that 1/3, 80% had tried 3 years or less.
Wrap up

• “Choosing” the cooperators
  – Let them Choose you
• Industry Buy in
  – If it is not valuable to co-op what good is it to me.
• Visibility of Specialist
• Interaction with Producers
  – Let them guide the direction of the project.
  – Build / rebuild relationship and trust
Oklahoma’s Hurtles

• Trust and Tradition
• Adoption by the masses occurs when the economics force a change.
  – High N prices
  – Weed and quality pressure.
Thank you!!!
Optical Sensors