An Ag. Retail Perspective

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MFA Incorporated
Influencing Precision

• More about influencing data utilization
  • Machine will collect the data, but how will the grower use it?
• Great advances in “retrofits” to older equipment
Increased Precision = Increased 4R Adoption

• There is no substitute for soil testing!
  • Soil tests are good for all involved
    • Retailer, Grower, Wholesaler, Landowner, Landscape
• Higher yields, good hybrids
  • Lots of low soil test levels
  • Lots of variability
Data Integration - Ease of Use

- App-Web Integration
  - Grower Side/ Grower Interaction
  - Soil Sampling
  - Scouting
  - Planting Recs.
Communication-Data Flow

• Realtime application alerts-summaries
4R- Precision

- High initial equipment costs
  - Data integration, etc. costs dollars
  - Absorb?, pass to the grower how?
- Retail communicates policy to the grower
  - Labeled buffers, cutoff dates, etc.
Land Tenure

• We can foster/maintain great grower relationships
• Struggle on leased cropland
  • Getting the initial investment of the soil test
  • Getting any fertility builds applied
  • Conservation practices the same
    • No guarantee of tenure, investments paying off
MFA Conservation Positions

- Conservation Specialist (2018)
- Conservation Grazing Specialist (2019)
TSPs

• Currently employ 20 certified USDA-Technical Service Providers
  • CAP 104/102- Nutrient Management
  • Covid-19 delayed IPM Certifications
• Aligns well with Nutri-Track
• Hopeful for future opportunities to continue
An Ag Retail View on Carbon

• Positive for getting revenue to growers
  • Ensure that’s where the dollars end up
  • Need a marketplace push to Cover crops-No till

• Farmer-owned Ag Retail not vertically integrated enough to have our own programs
An Ag Retail View on Carbon

• Continue with data to prove practices
  • Edge of field practices (+ Carbon)
• Find a way to compensate early adopters
• We’re always looking to pass good programs to growers
  • A way for us to help verify, advocate, guide growers?
  • CCAs, TSPs
Profit Demo

<table>
<thead>
<tr>
<th>Dry Yield</th>
<th>Ac</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.14 - 91.18</td>
<td>10.81 ac</td>
</tr>
<tr>
<td>91.20 - 152.97</td>
<td>15.28 ac</td>
</tr>
<tr>
<td>153.99 - 197.78</td>
<td>19.96 ac</td>
</tr>
<tr>
<td>197.81 - 250.69</td>
<td>16.67 ac</td>
</tr>
<tr>
<td>250.77 - 350.00</td>
<td>6.93 ac</td>
</tr>
</tbody>
</table>

Planted June 7

Avg. 166
### 2019 Crop
**Corn - Grain**

<table>
<thead>
<tr>
<th>Expense</th>
<th>Explanation</th>
<th>$/acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td>Cash Rent, Land Payment, Liability Insurance, Property Taxes, Crop-Insurance secured, RP, CAT, etc.</td>
<td></td>
</tr>
<tr>
<td>Crop Insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tillage Cost</td>
<td>Include all tillage passes, from fall 2018 through planting</td>
<td></td>
</tr>
<tr>
<td>Agronomy Services</td>
<td>Cost of soil sampling, running recs, crop consulting services</td>
<td></td>
</tr>
<tr>
<td>Dry Broadcast Fertilizer</td>
<td>Cost of P/K based fertilizer. MAP, DAP, MESP</td>
<td></td>
</tr>
<tr>
<td>N Fertilizer</td>
<td>Cost of N based fertilizer. Anhydrous, Urea, Super U, UAN, etc.</td>
<td></td>
</tr>
<tr>
<td>Crop Protection</td>
<td>Cost of all crop protection products, including herbicides/fungicides/insecticides</td>
<td></td>
</tr>
<tr>
<td>Application</td>
<td>Cost of application, spraying, spreading, gas application</td>
<td></td>
</tr>
<tr>
<td>Cash Crop Seed</td>
<td>Seed cost including treatment</td>
<td></td>
</tr>
<tr>
<td>Planting</td>
<td>Planting pass cost</td>
<td></td>
</tr>
<tr>
<td>Starter Fertilizer/Extra Insecticide/Biologica</td>
<td>Cost of all products applied with planter other than seed</td>
<td></td>
</tr>
<tr>
<td>Harvest</td>
<td>Harvest cost</td>
<td></td>
</tr>
<tr>
<td>Grain Hauling</td>
<td>Grain- Trucking cost</td>
<td></td>
</tr>
<tr>
<td>Grain Storage</td>
<td>Storage costs for 2019 crop</td>
<td></td>
</tr>
<tr>
<td>Cover Crop Seed - Fall 2018</td>
<td>Seed cost cover crop fall 2018, if used</td>
<td></td>
</tr>
<tr>
<td>Cover Crop Application - Fall 2018</td>
<td>Cover application cost Fall 2018 - if used</td>
<td></td>
</tr>
<tr>
<td>Capital Improvement Costs</td>
<td>Direct costs for practices such as tile, terracing (leverage over life of improvement)</td>
<td></td>
</tr>
<tr>
<td>Total Expenses Crop Year 2019</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2019 Crop Income

<table>
<thead>
<tr>
<th>Income</th>
<th>Explanation</th>
<th>$/acre</th>
<th>Grain Price @ time of sale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grain Sales</td>
<td>Income from grain sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gov’t Payments</td>
<td>FSA Payments, MPP, ARC/PLC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field Specific Program Payments</td>
<td>Program payments: FY 19 NRCS EQUIP, SWCD Cost share, MDC Cost Share, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crop Insurance Payouts</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Other Income</td>
<td></td>
<td></td>
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<tr>
<td>Total Income Crop Year 2019</td>
<td></td>
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Total Expenses $ -
Actual Field Profit

Yield Data (Corn – 2019)

- $20 + Net Profit
- $0-20 Net Profit
- $0- Net Profit
Remove the “noise”
Turn back to $$ using Conservation

• 15 Acres of this field ($0 or -0)
  • Avg. 100 bu. Corn = $ -144.20 = -$2163.00
• CP 33, 21- Continuous CRP
  • 90% SRR (142)= $127.80= $1917.00
  • Net: $4080 for 10 years = $40800.00
• EQIP- Wildlife Habitat Planting-Monarch
  • $837.67 1 time= $12,565.05+ $21,630.00= $34,195.05
Why edge of field or land conversion practices?
Voluntary Conservation

• Voluntary conservation doesn’t have a PR Agent
  • It’s confusing (CRP, CSP, EQIP, Local SWCD)
• You need to know what you want
• Funding levels
  • i.e. Continuous CRP acreage available
  • Good Soil Rental Rates-Practice Payments
Contact Info

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