An Agronomists (& Farmer’s) Perspective of Watershed Partnerships

Tilth Agronomy

www.tilthag.com

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Company Introduction
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• 10 Full time Agronomists
• Work in approx. 18 counties
• 350 Farm Clientele
• 250,000 Acres
• Consult mainly in Eastern WI
• Write NMP’s, CNMP’s, Crop Scout, GPS Soil Sample, Nutrient and Pesticide Recommendations
Consultant- Farmer Relationship

- Independent consultants
  - No product sales
  - No ties to any product or brand
  - Income directly tied to consulting, Plan writing and advise
  - Farmers have ability to purchase crop inputs from any supplied based on our independence
- Gain farmers trust
  - Year after year working relationship
  - Become part of the family
  - Attend weddings, funerals, graduation parties
Consultant- Farmer Relationship

- Historic approach to Phosphorus Management
  - By gaining their trust we can have the difficult conversations about sensitive issues on the farm
  - Soil testing, Manure testing to determine high P fields
  - Implementing Snap Plus to manage soil loss
  - Manage crop rotation to keep in forage cover for the longest amount of time
  - Restrict fertilizer and manure P on high testing fields
  - Plant grass waterways in areas of erosion
  - Cover Crops and No Till becoming more prevalent
    - Benefits and liabilities to both Cover Crops and No Till
  - VRT Fertilizer
How Does a Farmer see conservation?

REDUCE RESIDUE REMOVAL
- Need CS or Alf Forages
- Grain Markets +/-
- Build OM
  - Increase chopping height, Add Manure, Reduce Tillage

COVER CROPS
- Provide Cover in Late Summer, Fall, Spring snow melt (Maintain Soil Stability)
- Build OM – Soil Organisms
- Yield Advantage
- Reduces tillage (Reduce Cost of Production)
- Cost of Implementing Practice

CROP ORIENTATION (Not common in NE WI)
- Contour Strips, Rearrange planting direction
COVER CROP CONSIDERATIONS

- Tillage Radish
- Winter Rye
- Red Clover/Crimson Clover
- Barley
- Oats
- Perennial - Annual Ryegrass
REDUCE TILLAGE

- No till or Minimum Till
- New Equipment
- Cost
- Yield adjustment
- Change current practices
- Sandy loam soils
- Heavy Red Clays
- Manure Application
VRT Fertilizer

• Putting fertilizer where it is needed and restricting it where it is not based on soil test phosphorus
• P and K main fertilizer Variable rate
• Certain areas Lime VRT as well
### Layer Summary

<table>
<thead>
<tr>
<th>Layer</th>
<th>Attribute</th>
<th>Records</th>
<th>Average</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Test 2010</td>
<td>P</td>
<td>77</td>
<td>50</td>
<td>6</td>
<td>500</td>
<td>9</td>
</tr>
</tbody>
</table>

**P (ppm)**

- Below 17: 9 sites
- 17 to 35: 36 sites
- 35 to 50: 14 sites
- 50 to 75: 11 sites
- 75 to 100: 3 sites
- Above 100: 4 sites

Scale = 489 feet/inch
Prescription Workorder

Prepared For: [Farm]
Field: 24
Crop Zone: Alfalfa, Established
Crop Year: 2013

Acres: 48.99

Product Summary
Operation: Spread fertilizer
Product: 11-52-0

Area (Acres):
Total: 48.98
App: 36.14

Ratio (lb/acre):
Average (total): 67.00
Average (app): 91.00
Minimum: 0.00
Maximum: 125.00

Quantity: 1.64 (tons)
Economics of VRT

• Soil test P Range 5 ppm-489 ppm – AVERAGE 108 ppm
• Field 14- UW Recs- No Fertilizer Recommended
• VRT- 30 acres require- Low to Very Low Range
• 30-90 bu/a yield loss
• Corn Price- $3.10/bushel
• 60 bushel loss- 30 acres= $5,580 loss revenue
• $186/acre loss
How can Adaptive Management work - Challenges and Opportunities

- Farmer needs to be on the same page
  - Same environmental goals
  - Needs to fit farms forage and feeds needs for cattle
- Go slow at first
  - Farmers don’t like huge change, pick a few fields or projects at first until a comfort level is reached
- Long term contracts can SCARE farmers away
  - 10 years is an eternity for a farmer
  - Markets change quickly
  - Contracts need to be flexible
Adaptive Management in Action

• Conservation Practices
  • Soil testing, NMP
  • Buffer, Grass Waterways
  • Cover Crops
  • No-Till

• Grower Participation
  • Another regulatory agency???
  • Loss of productive farm land???
  • Reduced manure & fertilizer rates
  • Reduce yield & profitability
Things to ponder!

- Equipment needs may change
  - No till equipment, reduced tillage, zone till, reduced disturbance manure tools
- Crop rotation may need to change
  - Less corn silage or soybeans and more perennial crops
- Manure and tillage timings may need change
  - Move more to spring/summer vs. fall
  - Surface in crop manure applications may become more prevalent
- Innovation
  - Farmers are innovative ask them their ideas
- Business Partner limitations
  - Do fertilizer suppliers and custom manure haulers have VRT capabilities?
  - How about equipment dealers?
How does the government fit?

• NRCS, DNR
  • These agencies are great sources for funding, but not enough, cut budgets

• Who does the Conservation Planning?
  • County LCD’s have gotten away from true conservation planning in the last 10 years
  • Insufficient Certified Agronomist and County staff to do the Conservation plans

• Who’s the Cops?
  • Great communication is needed between all involved- Farmer, Agronomist & Municipality
  • Make NMP simple for farmer to carry out
How does the Agronomist fit?

- Most agronomist don’t want to be conservationist in the true sense of the word
  - Fertilizer, Pesticide & Seed Recommendations
  - In field Scouting- IPM
  - Technology management- VRT, UAV’s, Yield Maps
  - Soil sampling
- More training is needed for agronomist to be better conservation planners
  - NRCS provides high level training
  - Very time consuming
- Adaptation to the growing age of farmers- 60 years old
Questions?

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