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

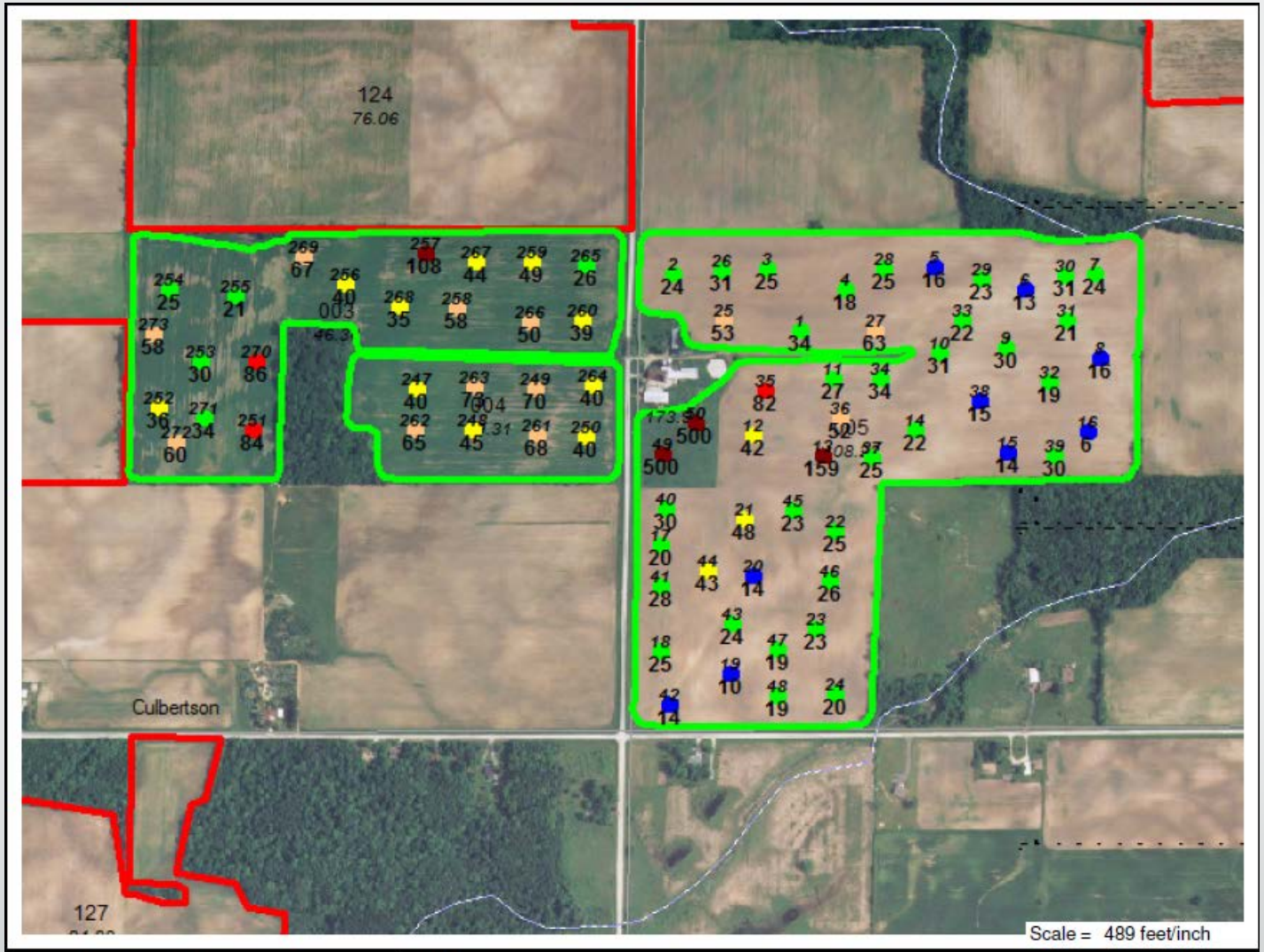
Perennial - Annual Ryegrass

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



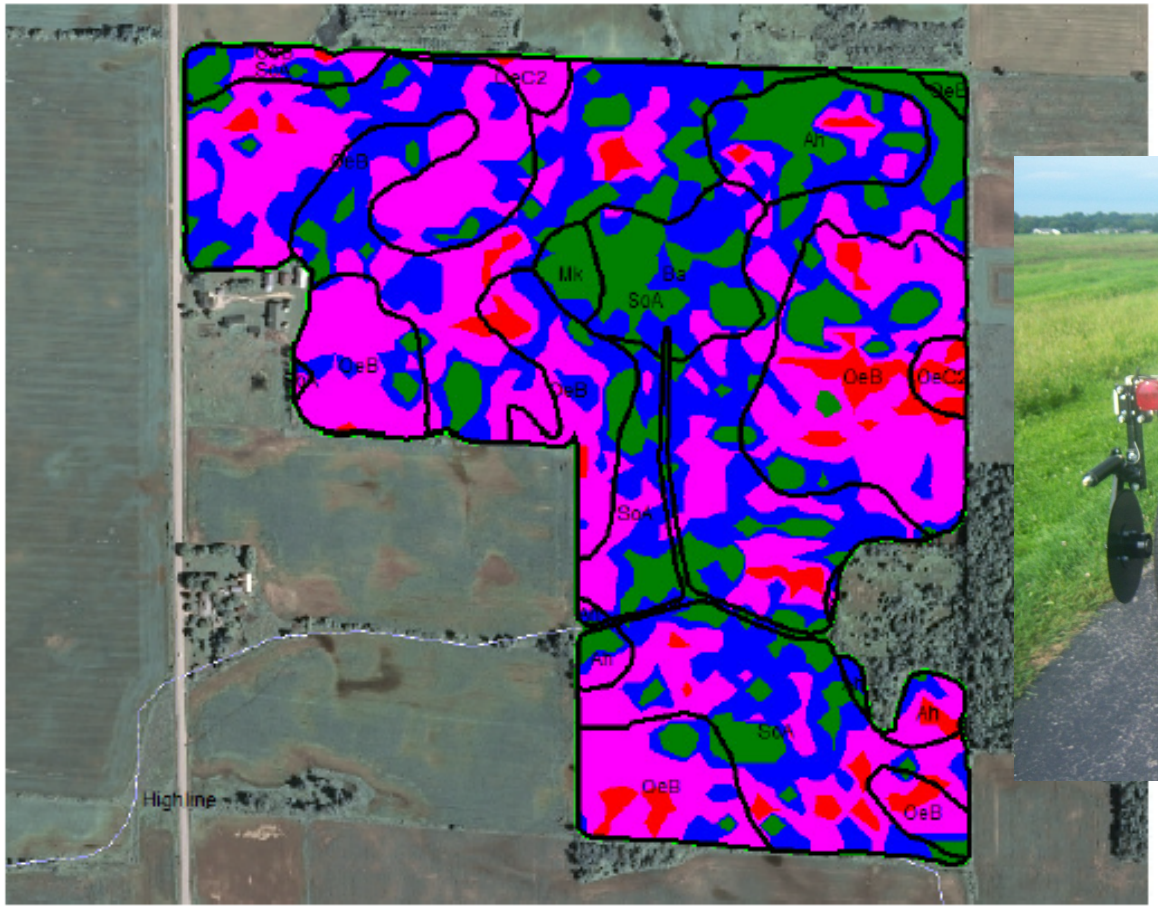
Layer Summary

Layer:	Soil Test 2010
Attribute:	P
Records:	77
Average:	50
Weighted Average:	
Minimum:	6
Maximum:	500

P (ppm)	Sites
Below 17	9
17 to 35	36
35 to 50	14
50 to 75	11
75 to 100	3
Above 100	4

Shallow Conductivity vs. Soil Type

Prepared	Crop Zone:
F	Crop Year:
I	
Co	Prepared By:



Data Values

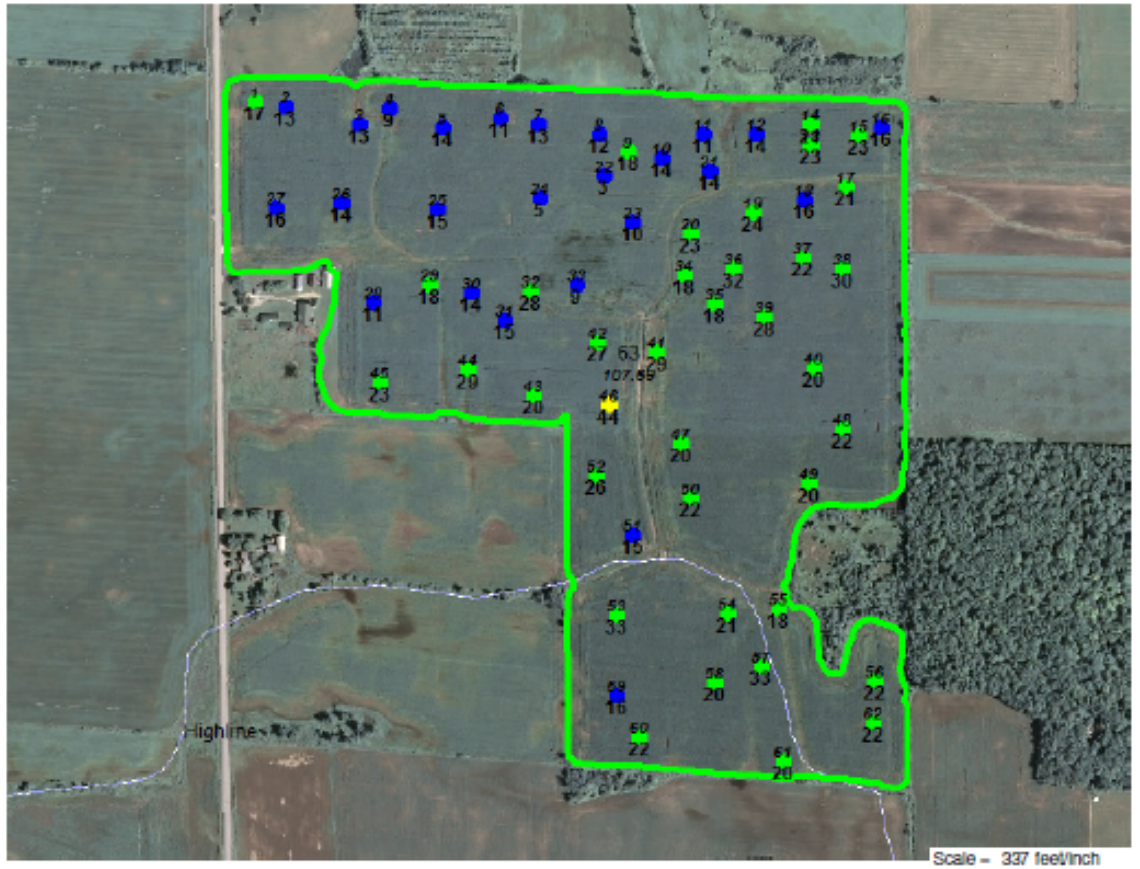
Attribute	Shallow
Records	141
Empty	1
Average	14.053
Min	-8.762
Max	68.937
Area	107.59

Shallow (mS)

- Below 6.000
- 6.000 to 12.000
- 12.000 to 18.000
- Above 18.000

P

Prepared For	**County:**
Farm	**Twp Rng Sec:**
Field. --	**Directions:**
Crop Zone:	
Crop Year:	**Acres:** 107.60



Layer Summary

Layer: Soil Test 2012
Attribute: P

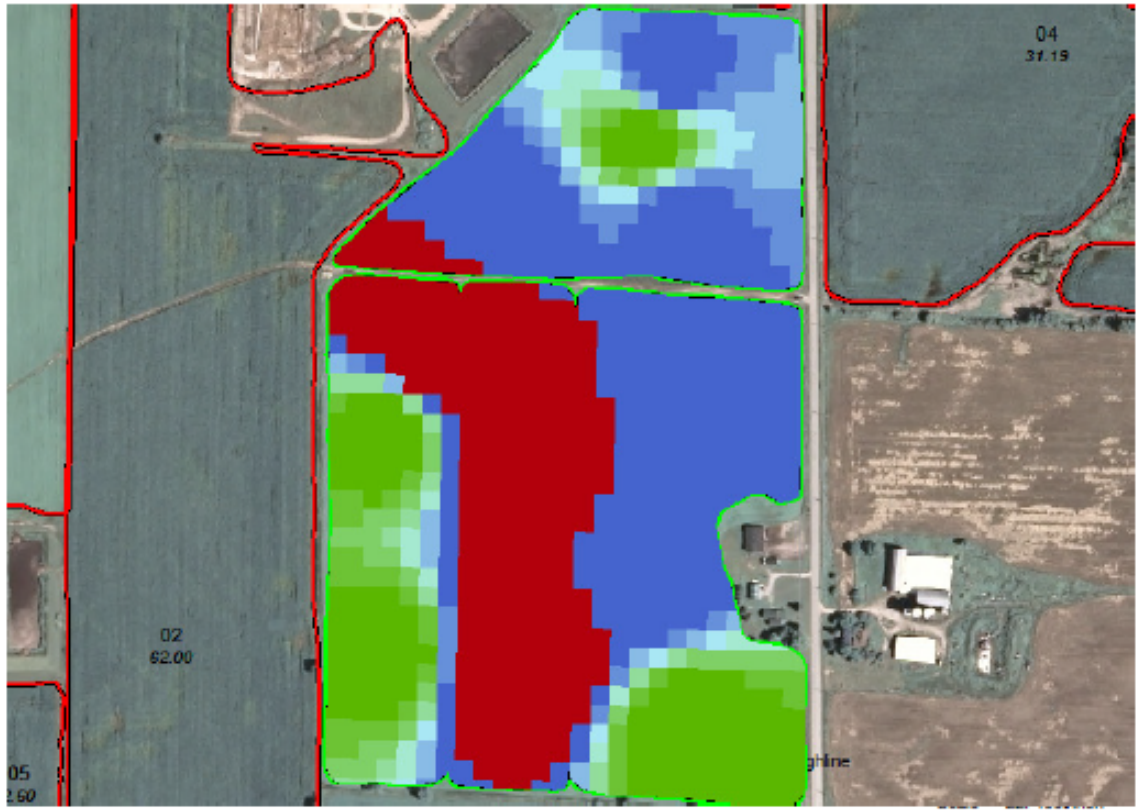
Records:	62
Average:	19
Weighted Average:	
Minimum:	3
Maximum:	44

P (ppm)	Sites
Below 17	25
17 to 35	36
35 to 50	1
50 to 75	
75 to 100	
Above 100	

Prescription Workorder

Prepared For:
Farm:
Field: 24
Crop Zone: Alfalfa, Established
Crop Year: 2013 **Acres:** 48.99

County:
Twp Rng Sec:
Directions:



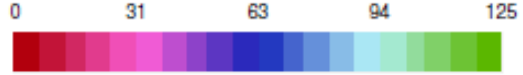
Product Summary

Operation: Spread fertilizer
Product: 11-52-0

Area (Acres)		Rate (lb/acre)	
Total:	48.98	**Average (total):**	67.00
App:	36.14	**Average (app):**	91.00
		Minimum:	0.00
		Maximum:	125.00

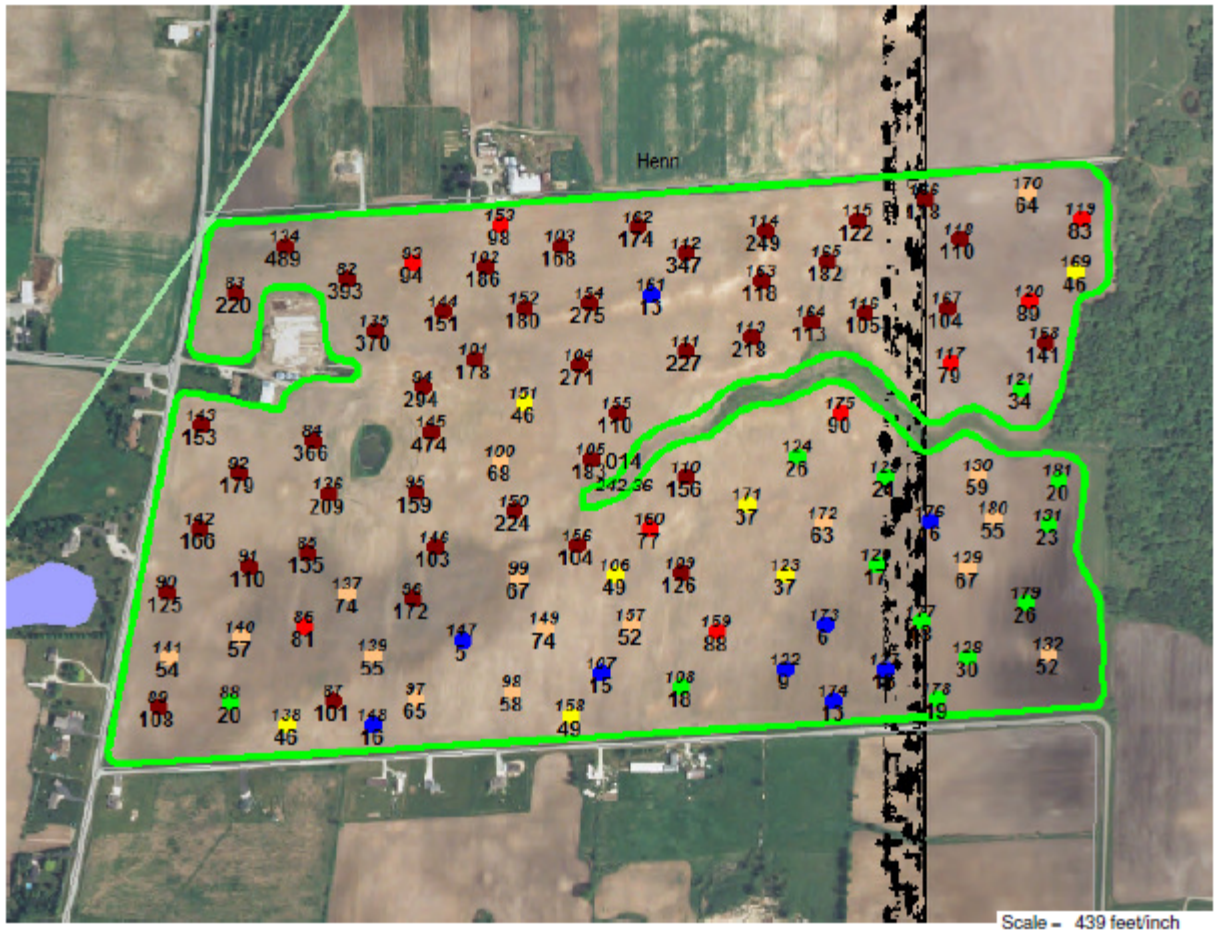
Quantity: 1.64 (tons)

11-52-0 (lb/acre)



Field: 014
Crop Zone:
Crop Year: **Acres:** 242.36

Directions:



Layer Summary

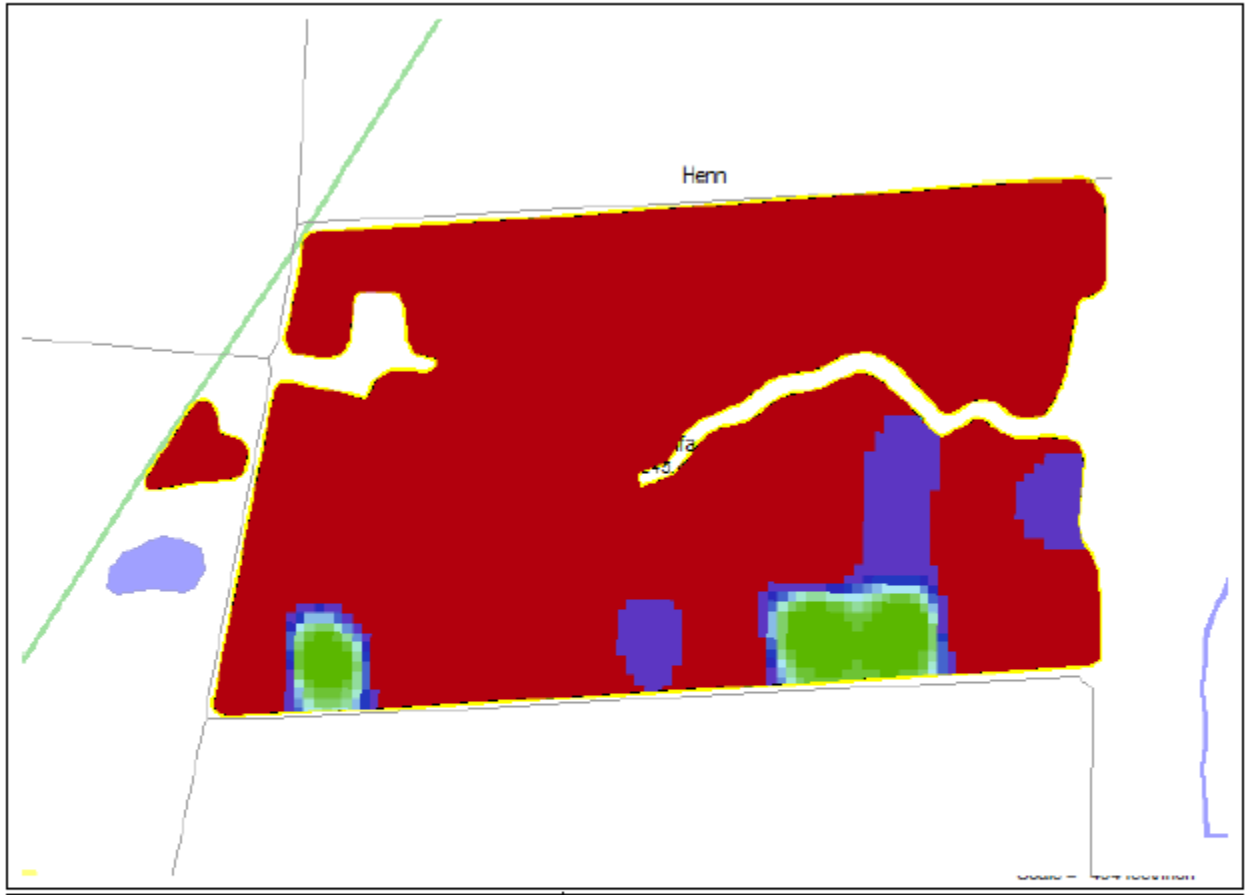
Layer: Soil Test 2010
Attribute: P

Records:	99
Average:	115
Weighted Average:	
Minimum:	5
Maximum:	489

P (ppm)	Sites
Below 17	9
17 to 35	12
35 to 50	7
50 to 75	16
75 to 100	9
Above 100	46

Field: 014
Crop Zone: Alfalfa
Crop Year: 2010
Acres: 245.47

Directions:



Product Summary

Operation: Spread fertilizer
Product: 11-52-0

Area (Acres)		Rate (lb/acre)	
Total:	245.37	**Average (total):**	14.00
App:	30.81	**Average (app):**	112.00
		Minimum:	0.00
		Maximum:	175.00

Quantity: 3443 (pounds)

11-52-0 (lb/acre)

0 44 88 131 175

Filename: C:\Users\User\Desktop\Rx Maps\ONF VRT\2010\ONF 2010(3)\Rx Files\014_11-52-0

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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TILTH AGRONOMY

Growth Begins Here.