# theBiG Precision THEORY



Prairie Lakes Coop

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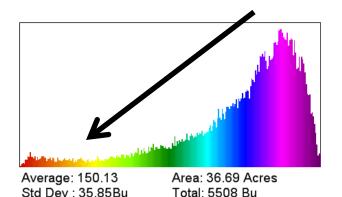


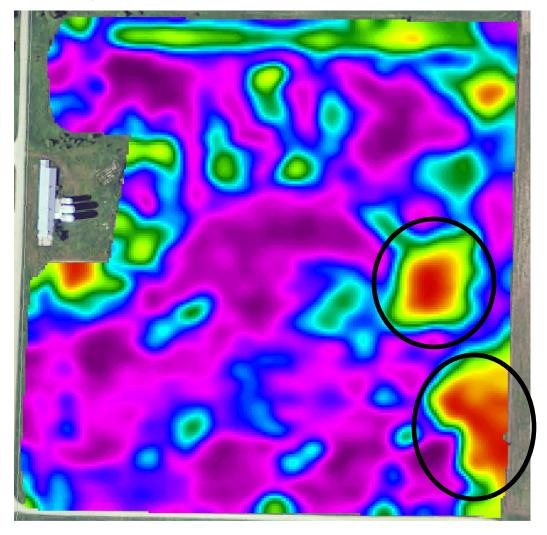




### Variability Factors

- Identify problem areas and consider how much they "curve" the overall average!
- Areas circled represent yield inconsistencies in the field which hurts our overall average.







## What technology has made life in agriculture easier?

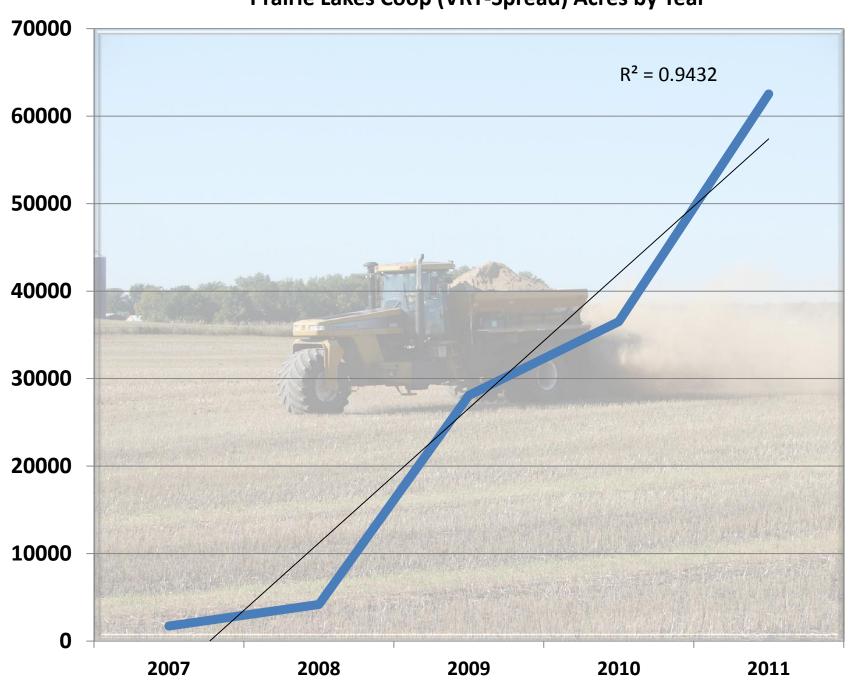
Age of Wireless

Networks, Servers

Tablets/Smartphones



**Prairie Lakes Coop (VRT-Spread) Acres by Year** 



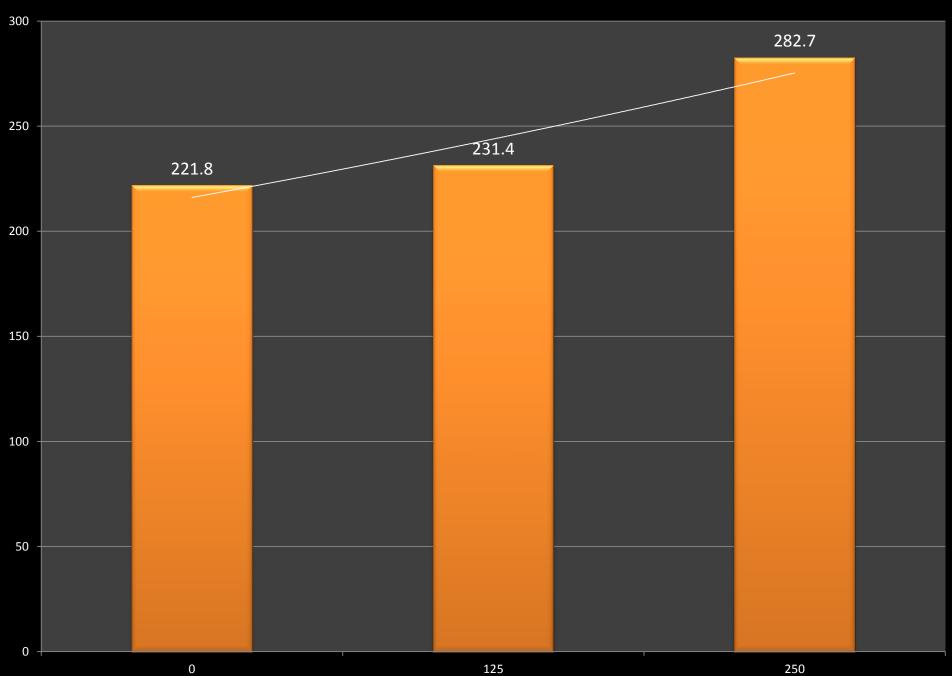
### In the quest for yield...

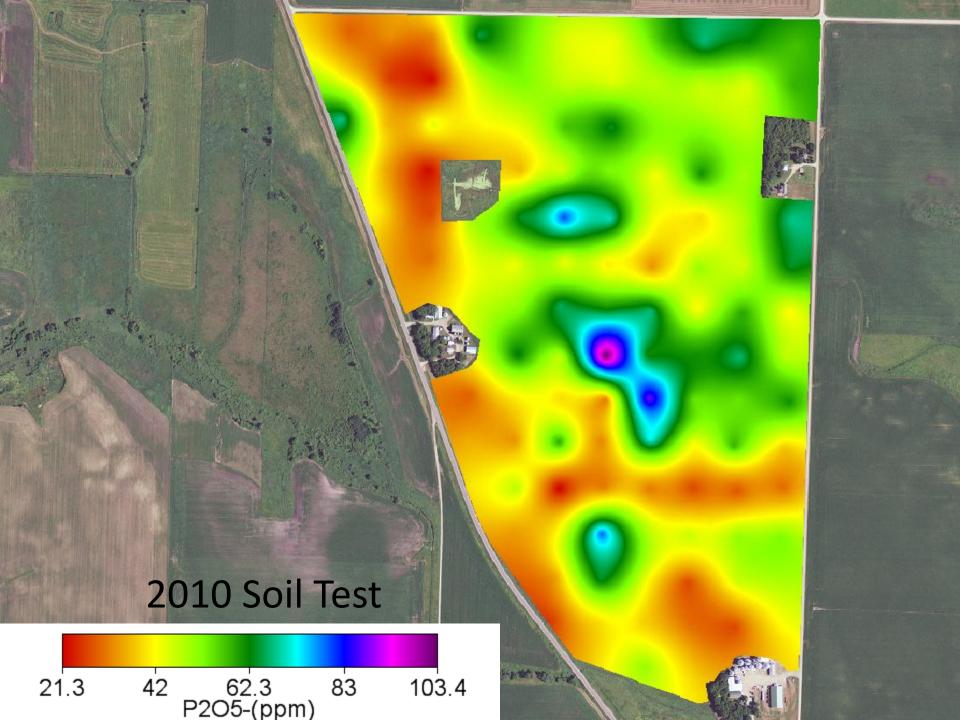
Following proven research for the highest agronomic and economic advantages:

<ul><li>Weather</li></ul>	-70+ Bu
<ul><li>Nitrogen</li></ul>	-70 Bu <b>←</b>
<ul> <li>Hybrid Selection</li> </ul>	-50 Bu <b>←</b>
<ul><li>Previous Crop</li></ul>	-25 Bu
<ul> <li>Plant Population</li> </ul>	-25 Bu <b>←</b>
- Tillage	-15 Bu
- Growth regulators	-10 Bu

Variability within fields is determining 55% of the yield potential within these three categories.

Final tally of 260 bushels/acre





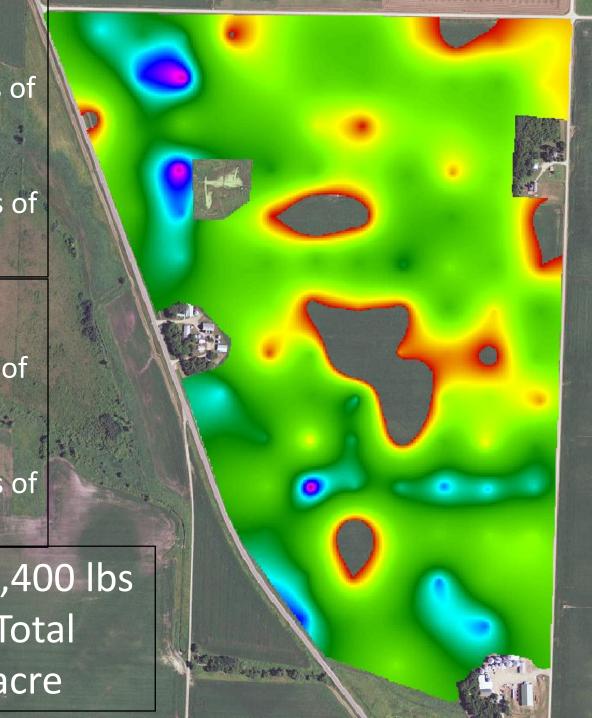
#### 2006

Average of 175 lbs of MESZ
Or
Totaling 53,000 lbs of MESZ

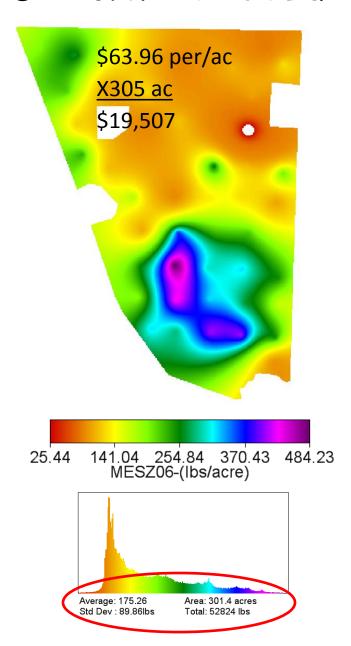
#### 2010

Average of 80 lbs of MESZ
Or
Totaling 22,600 lbs of MESZ

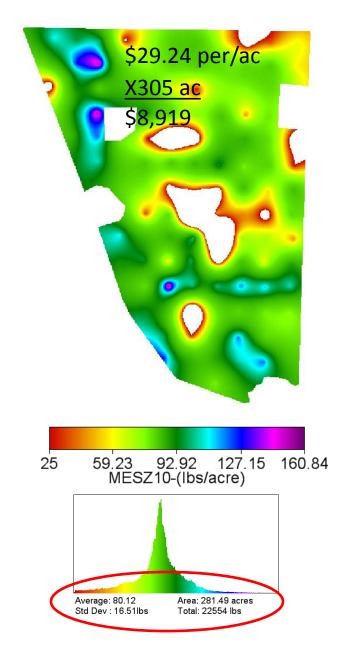
Savings of 30,400 lbs \$11,100 Total \$36.40/acre

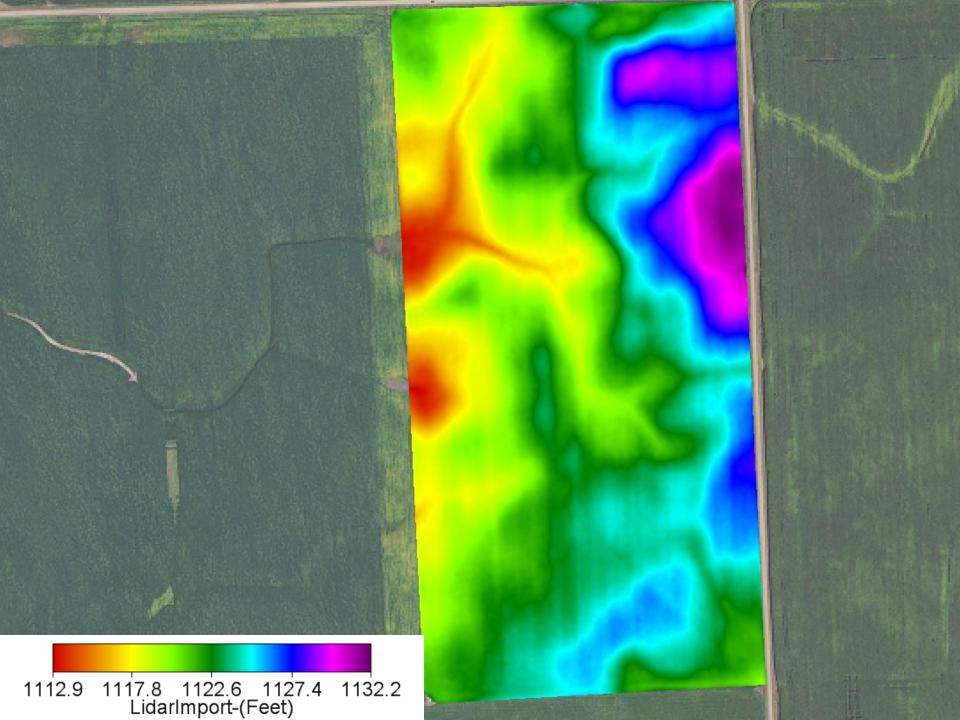


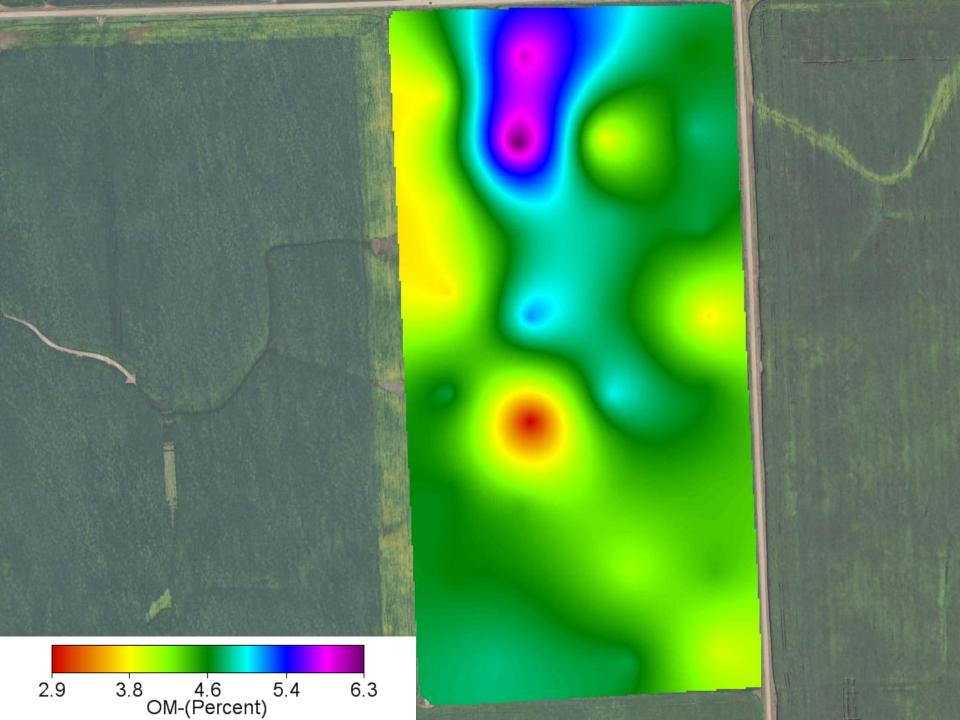
#### 2006: Corn Rx 230Bu



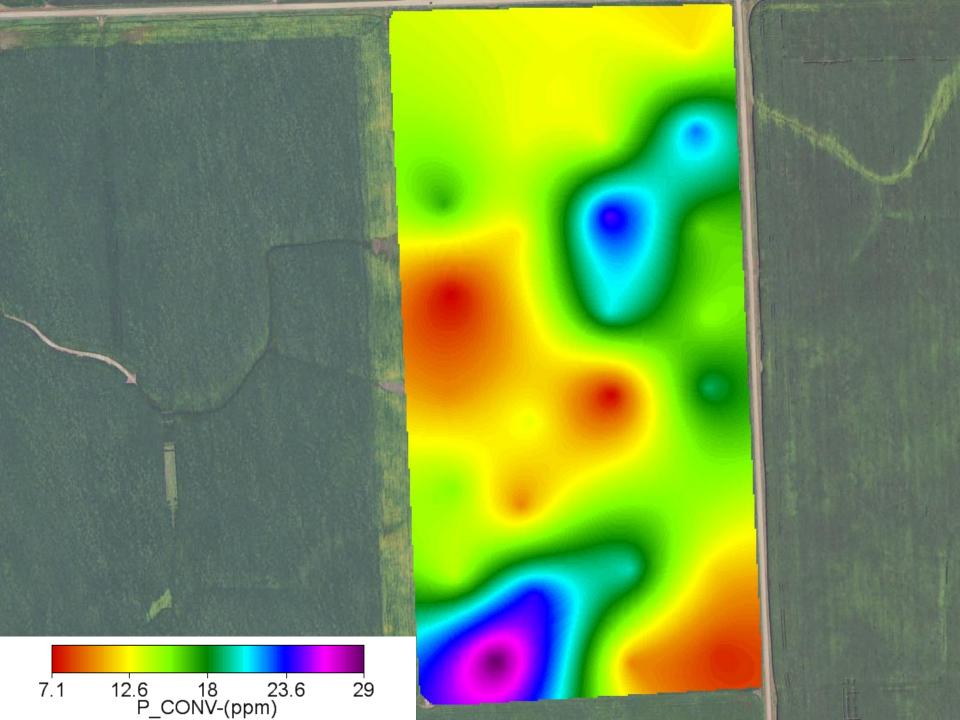
#### 2010: Corn Rx 230Bu

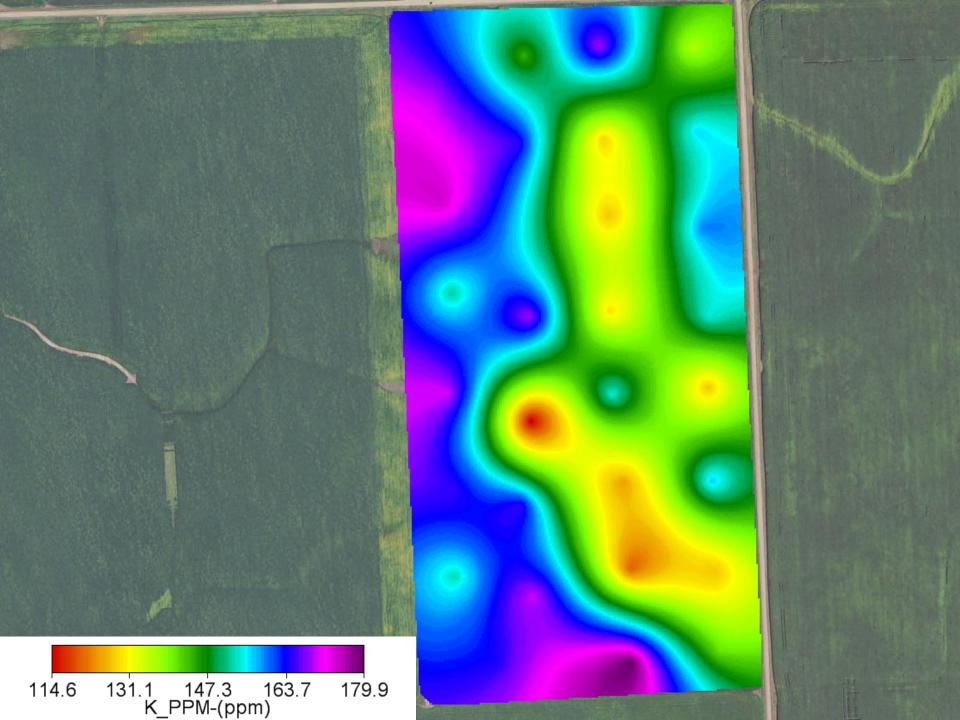


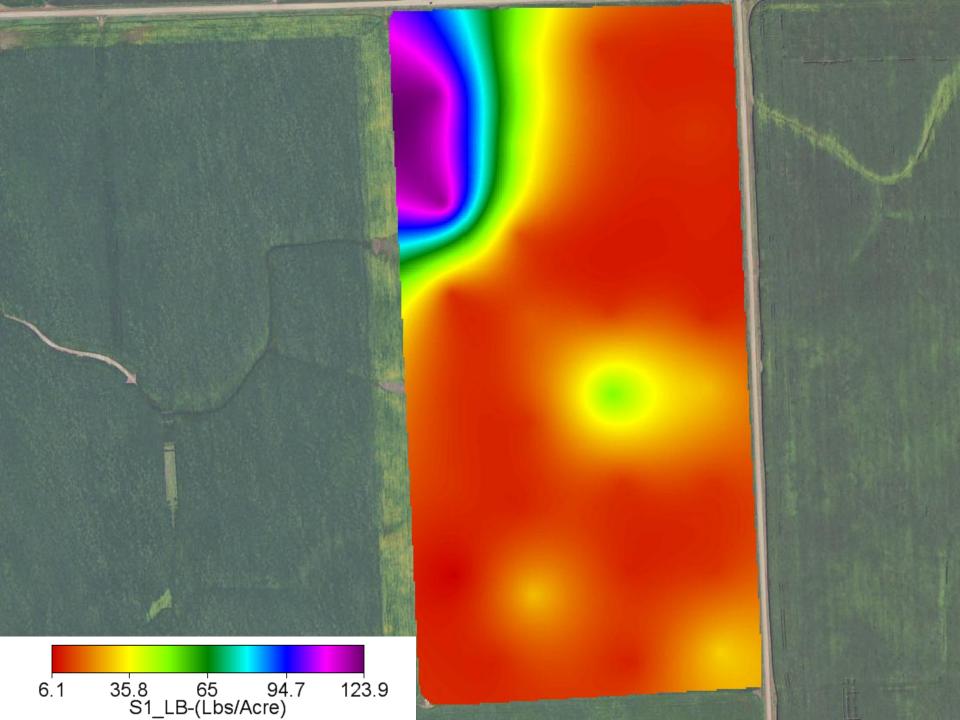


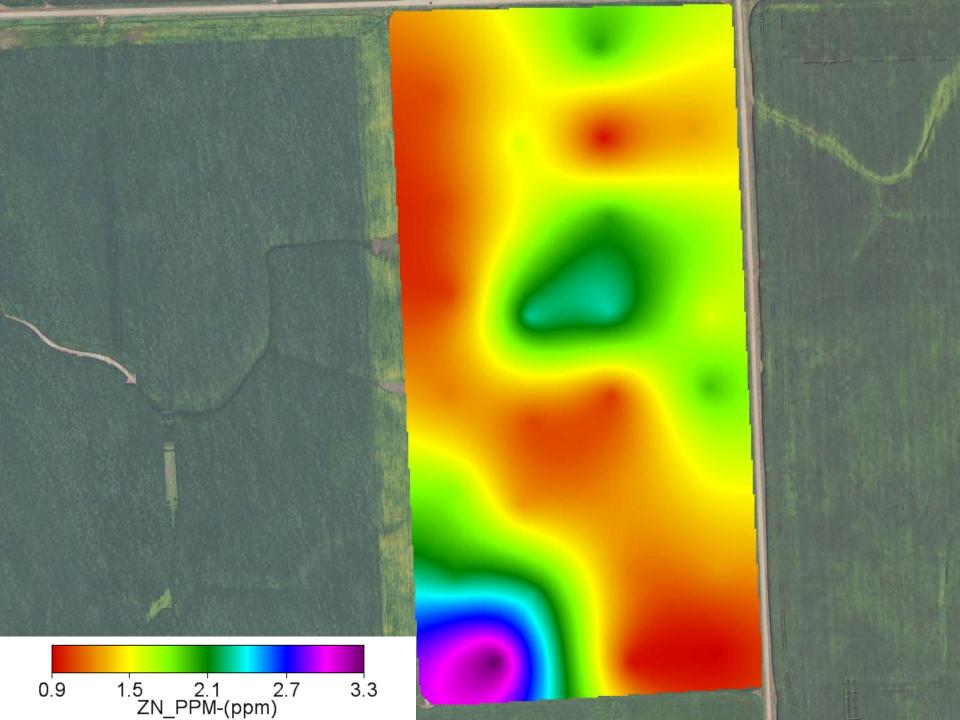


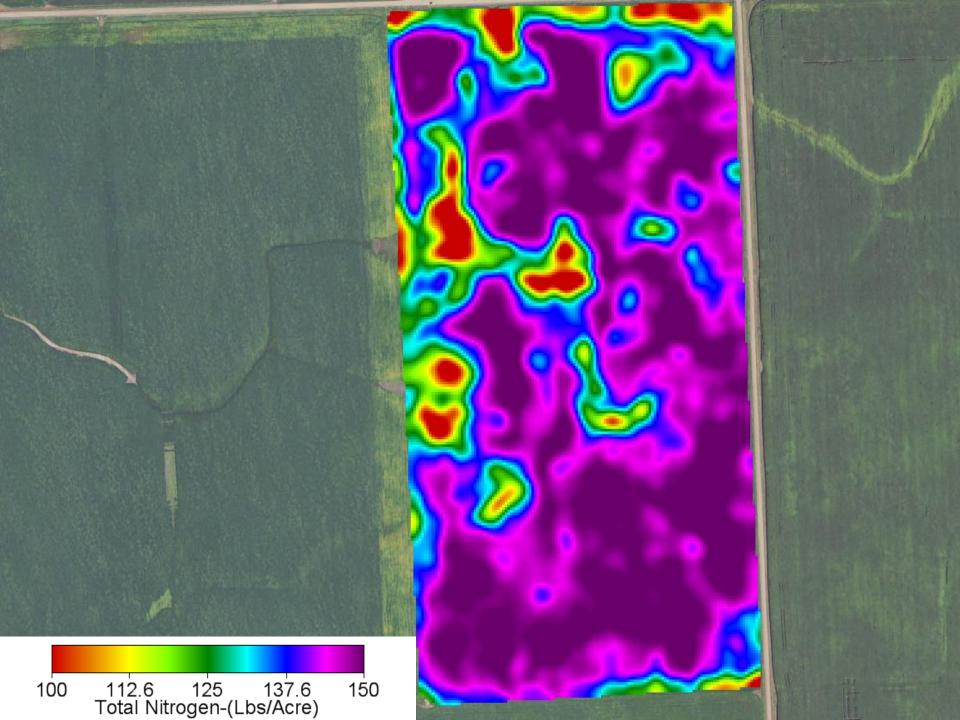


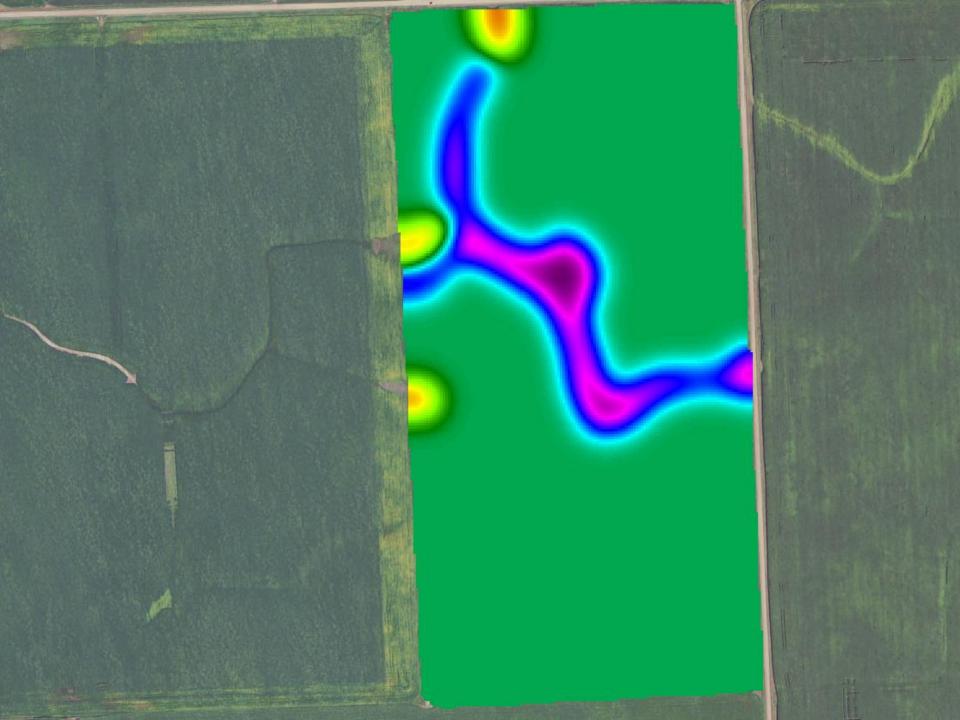




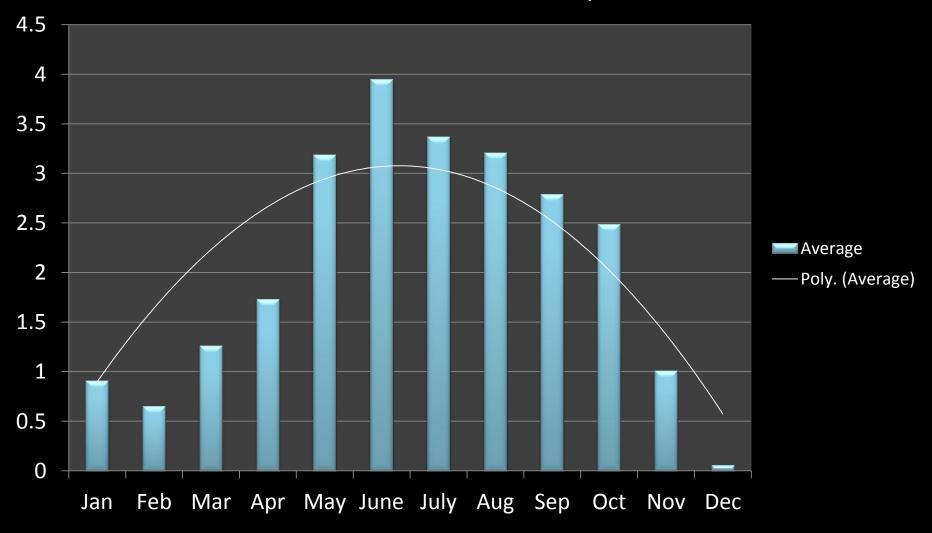




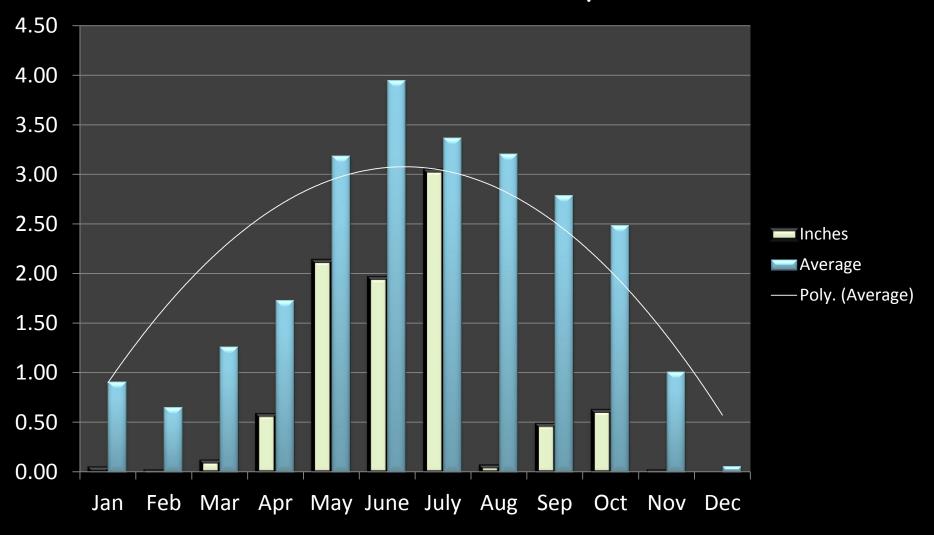


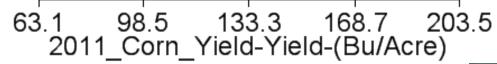


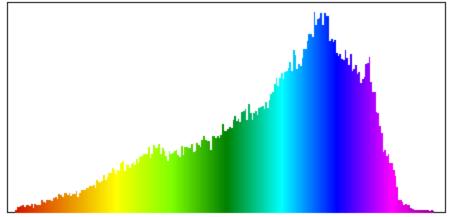
2011 Elbow Lake, MN Precipitation



2011 Elbow Lake, MN Precipitation

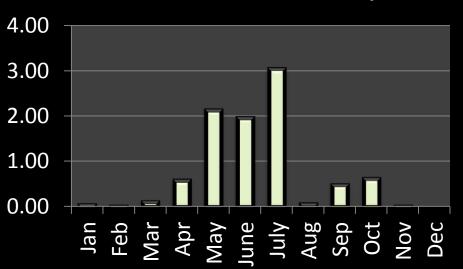




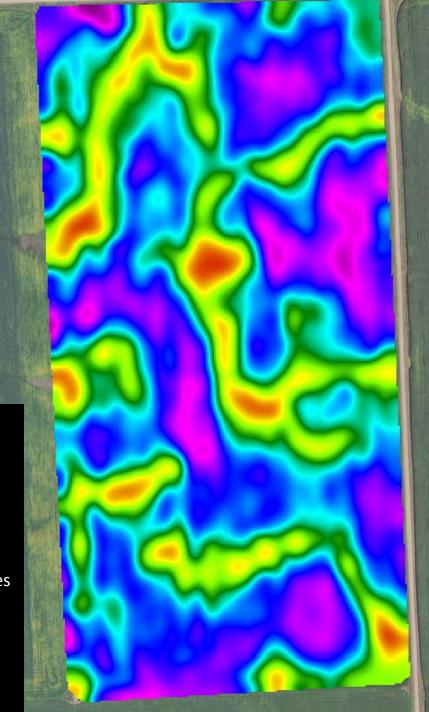


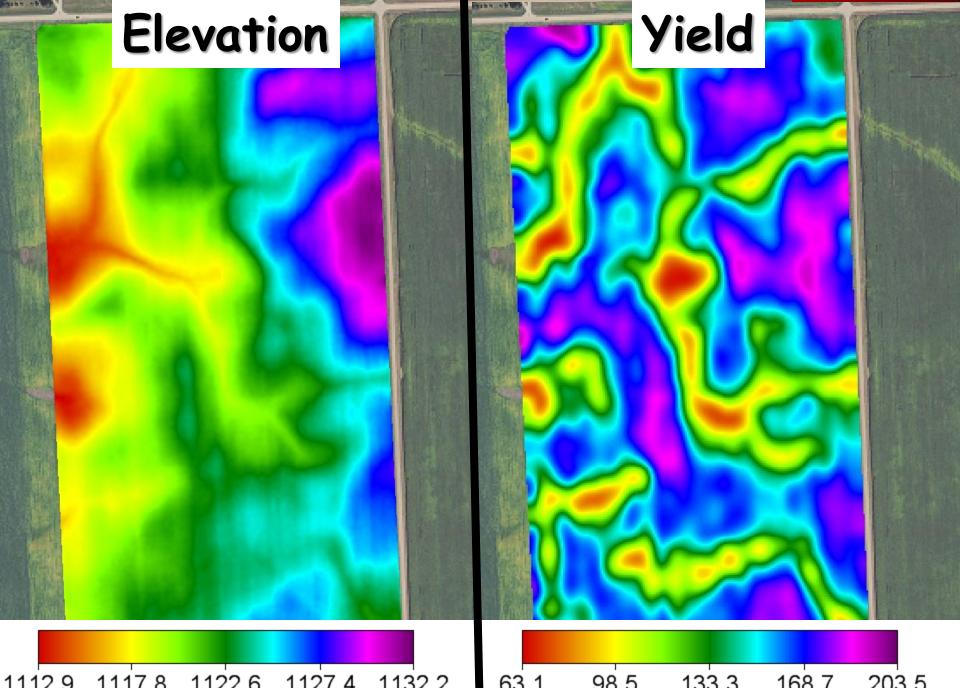
Average: 146.5 Area: 77.64 Acres
Std Dev : 26.96Bu Total: 11374 Bu

#### 2011 Elbow Lake, MN Precipitation



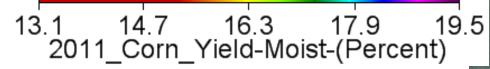
Inches

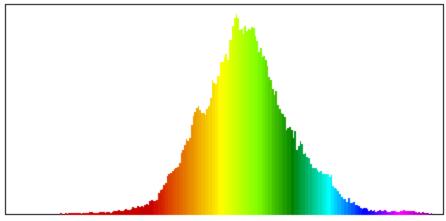




1112.9 1117.8 1122.6 1127.4 1132.2 LidarImport-(Feet)

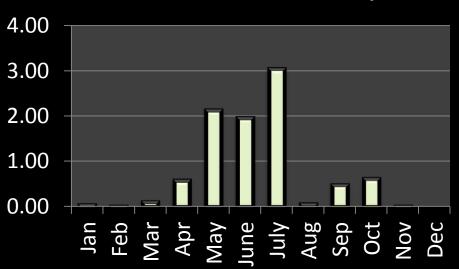
63.1 98.5 133.3 168.7 203.5 2011\_Corn\_Yield-Yield-(Bu/Acre)

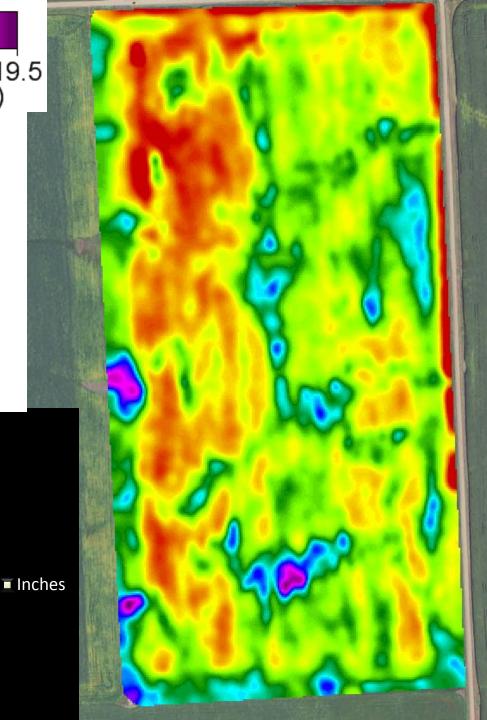


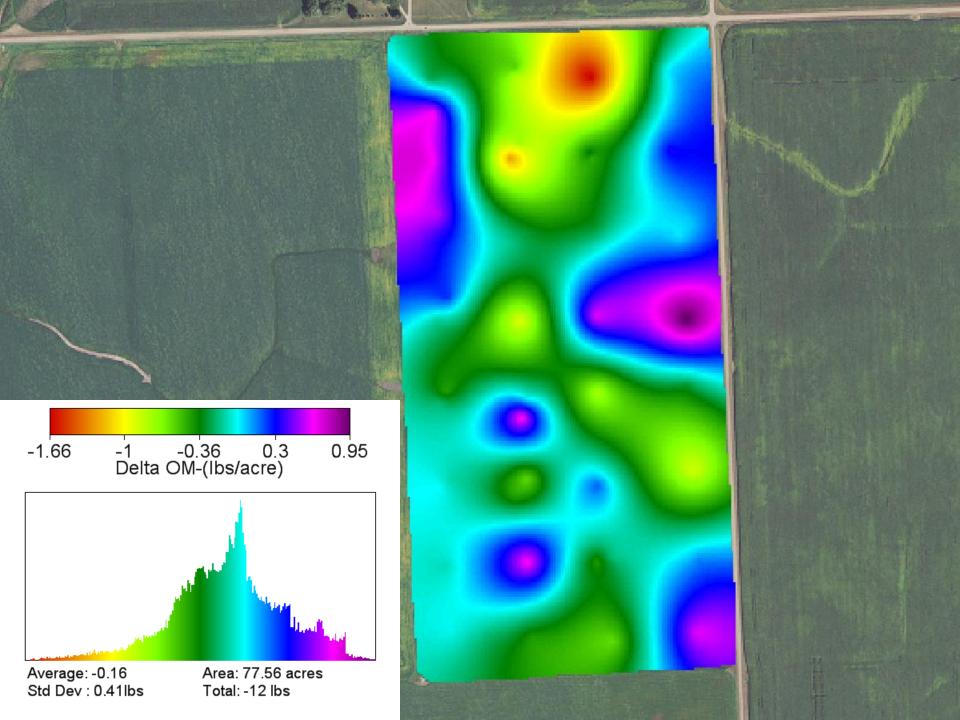


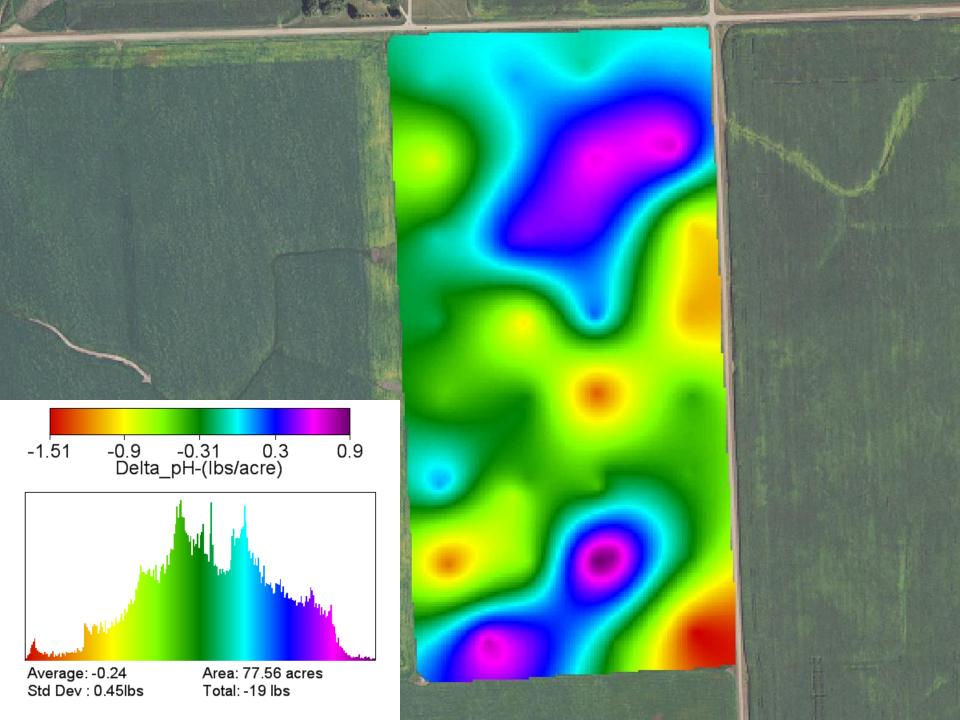
Average: 16.58 Area: 77.66 s Std Dev : 0.68 Total: 1288

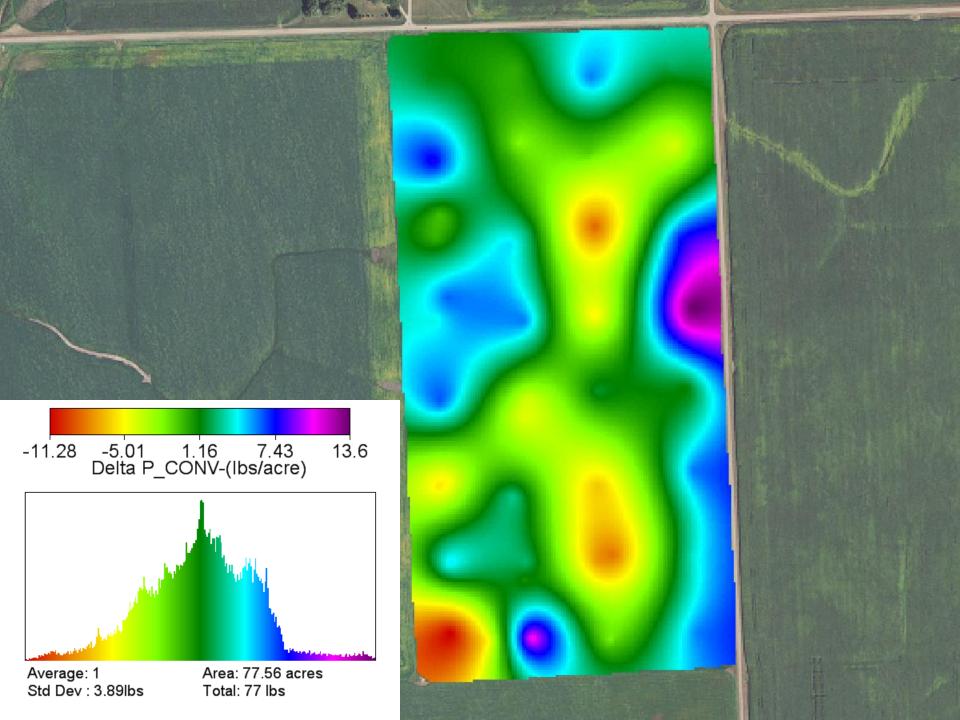
#### 2011 Elbow Lake, MN Precipitation

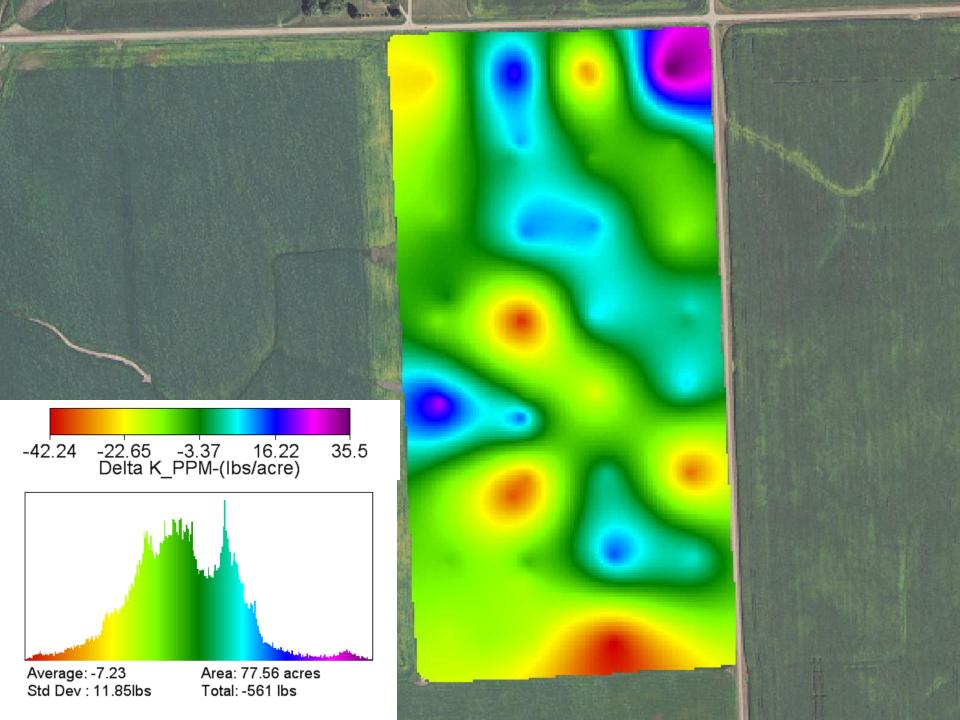






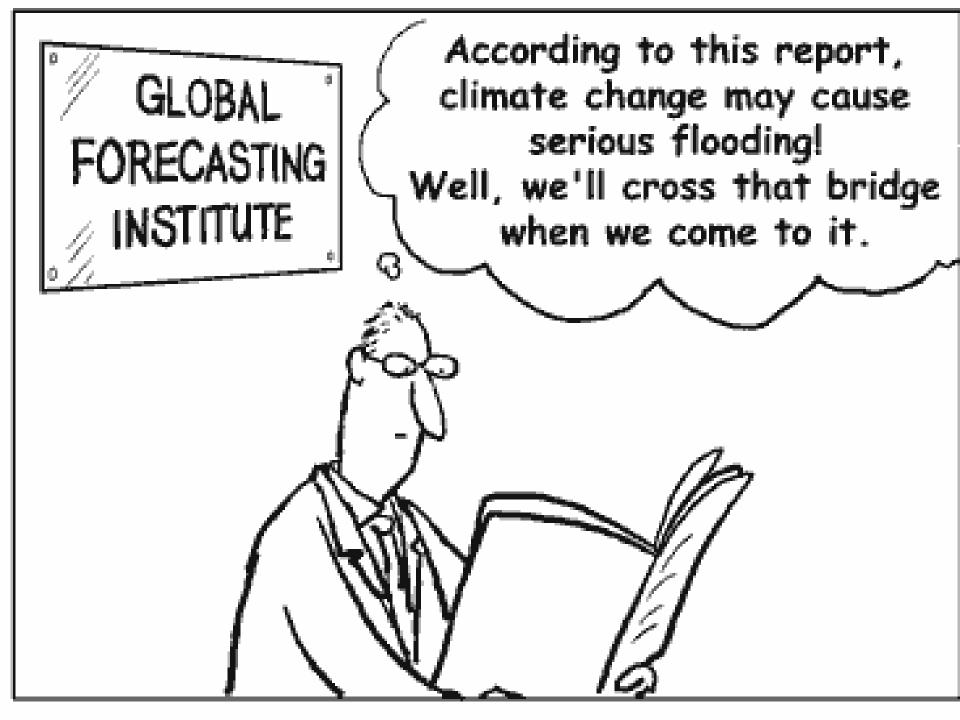


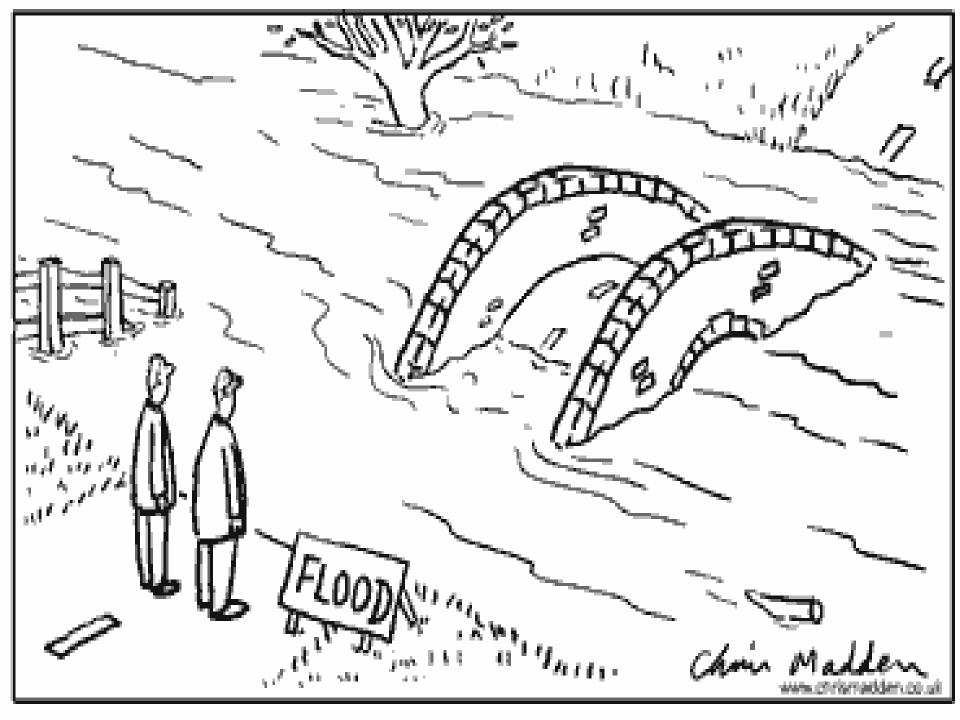


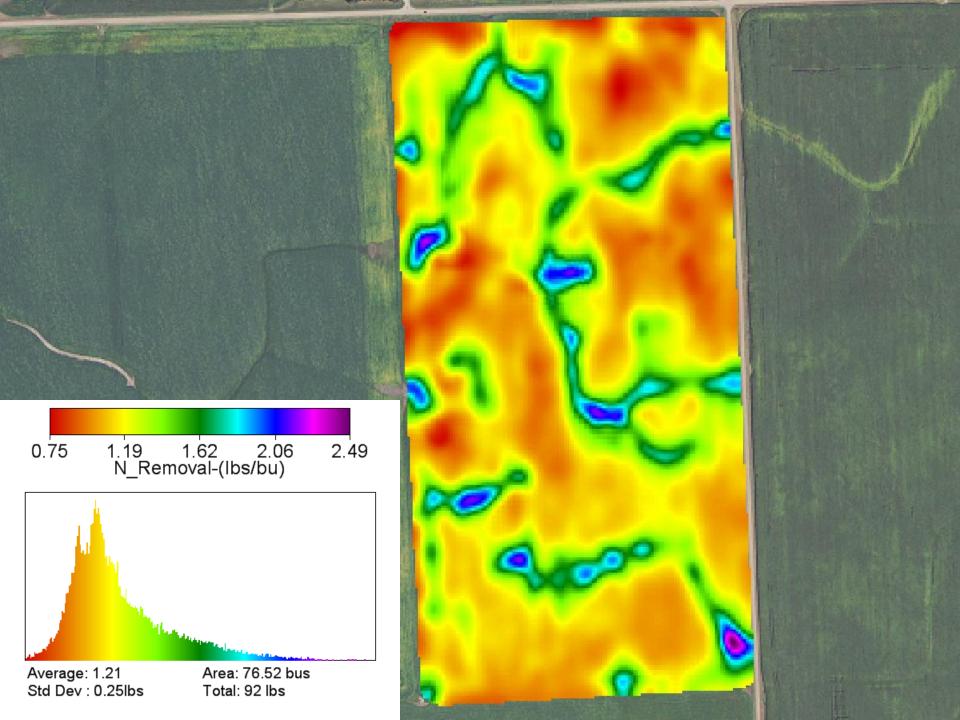


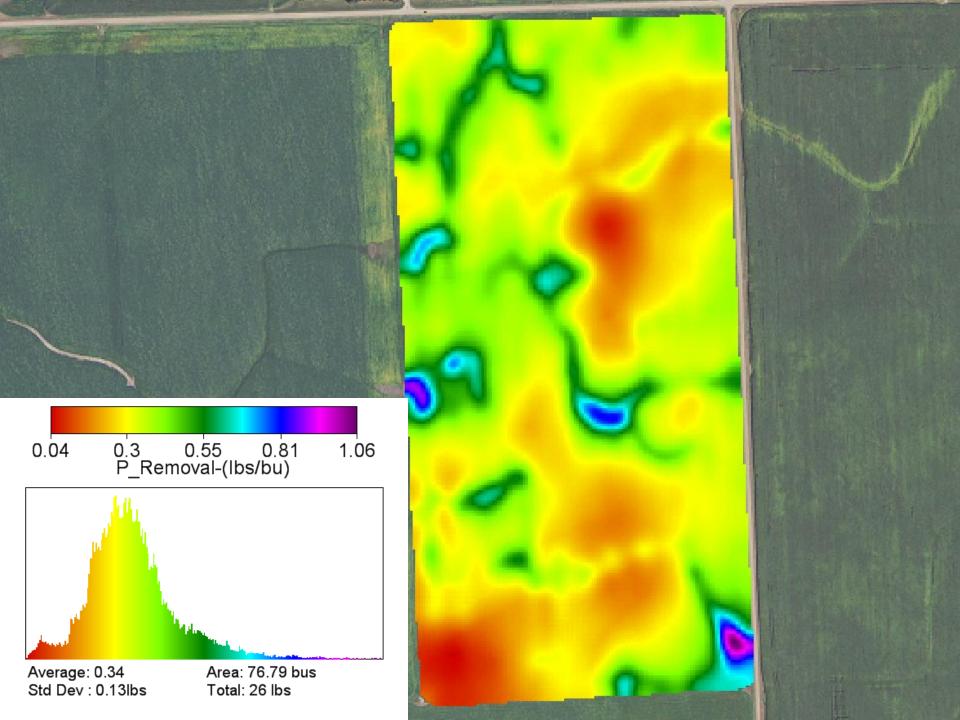
## Thoughts...

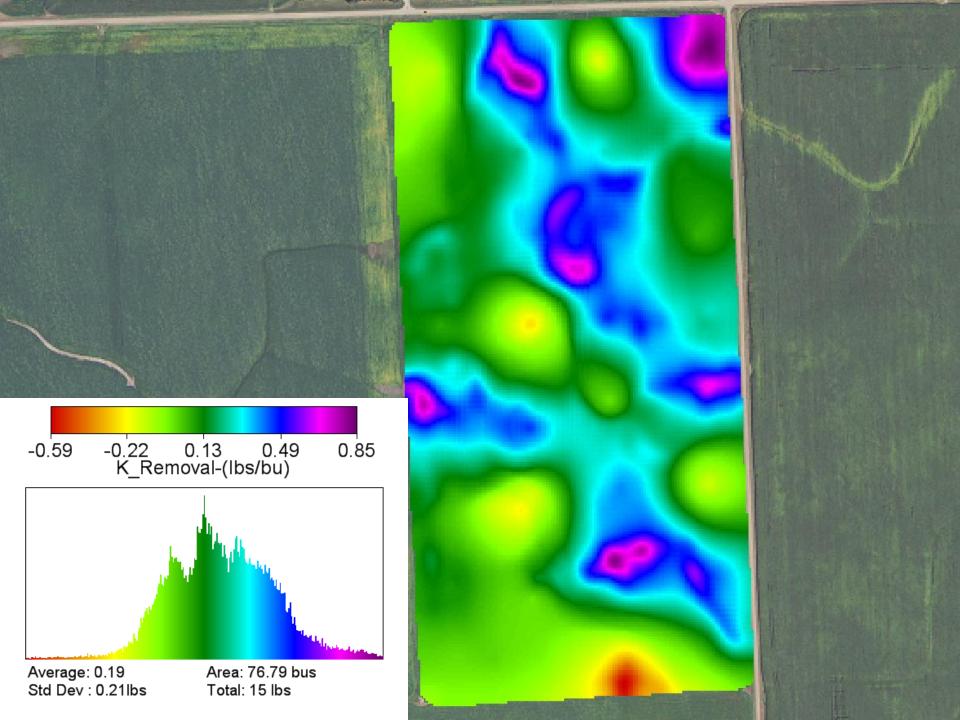


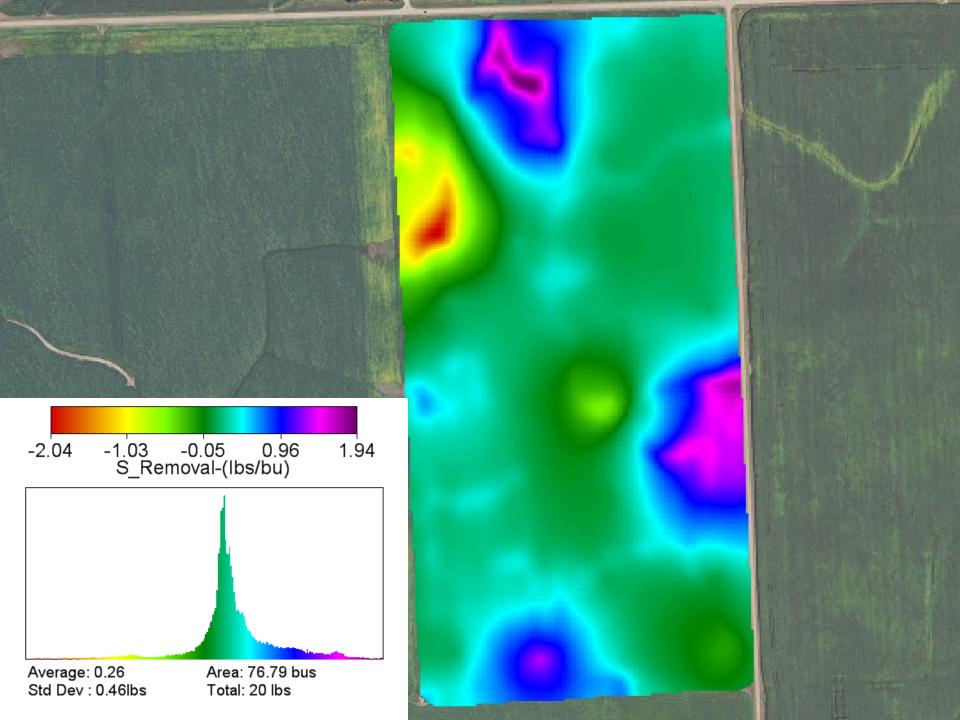


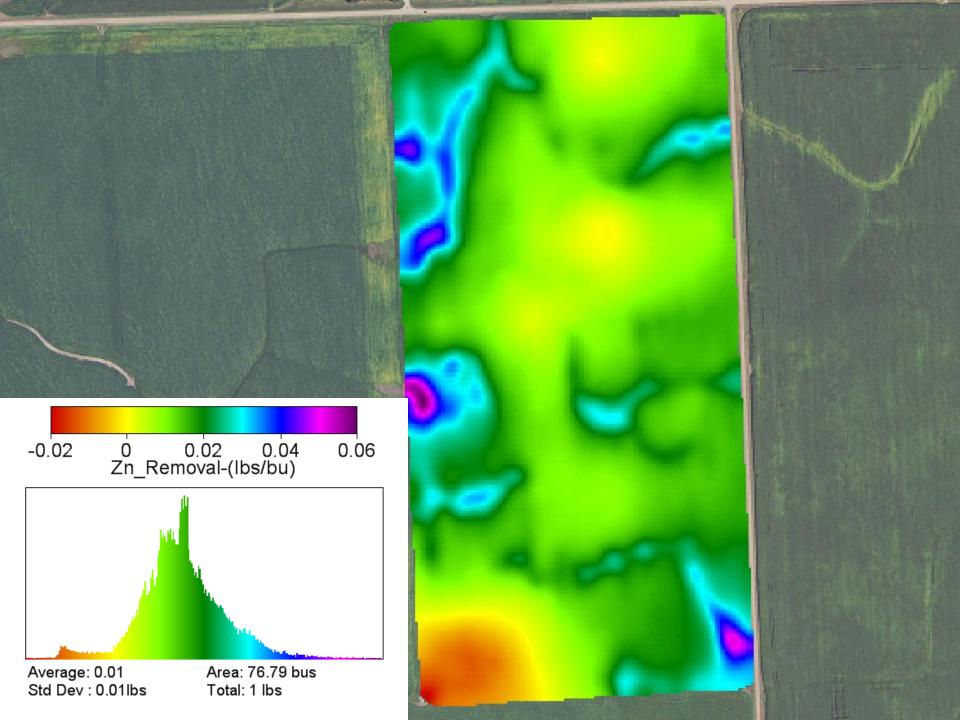




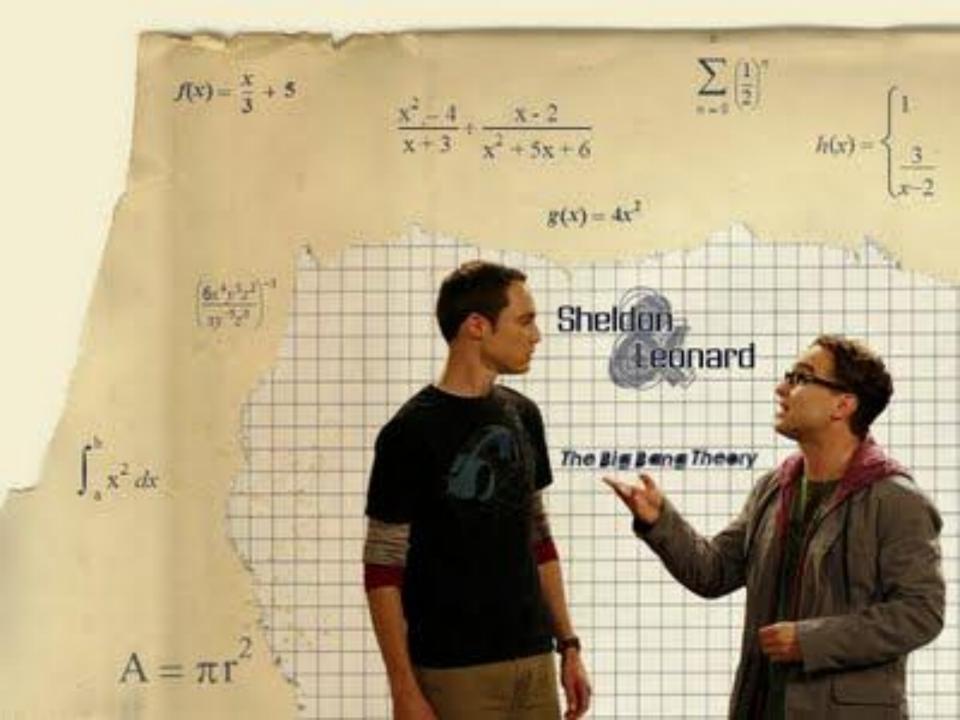




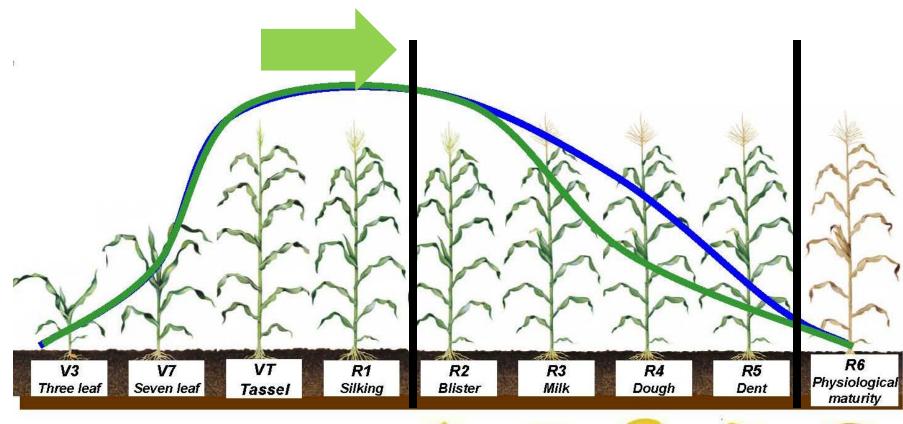








## Photography Timing











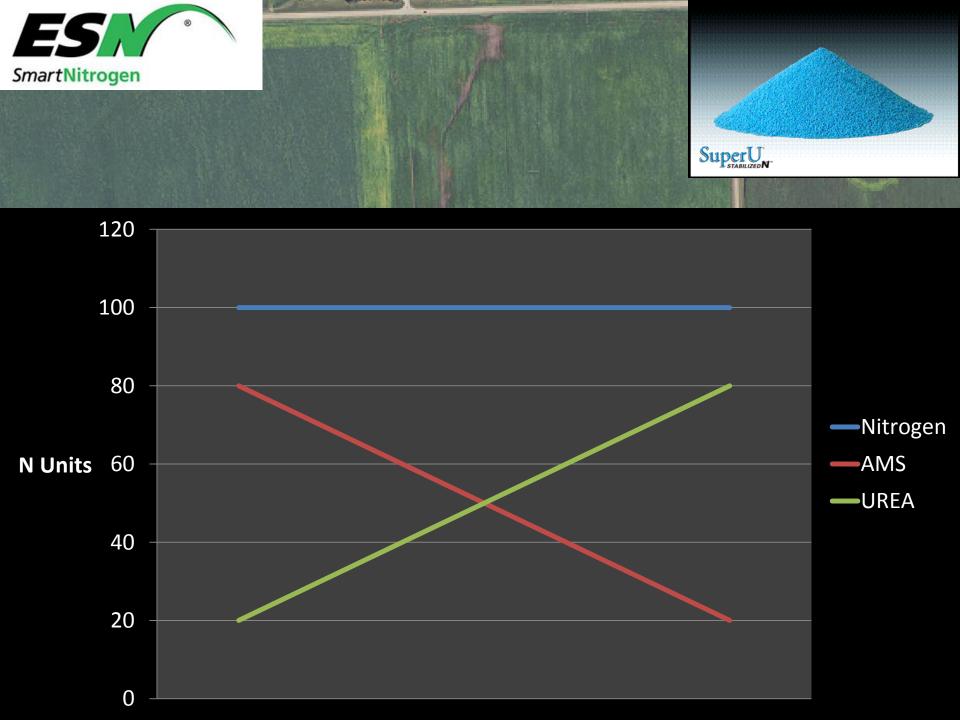




Nitrogen...
Or Opportunity??

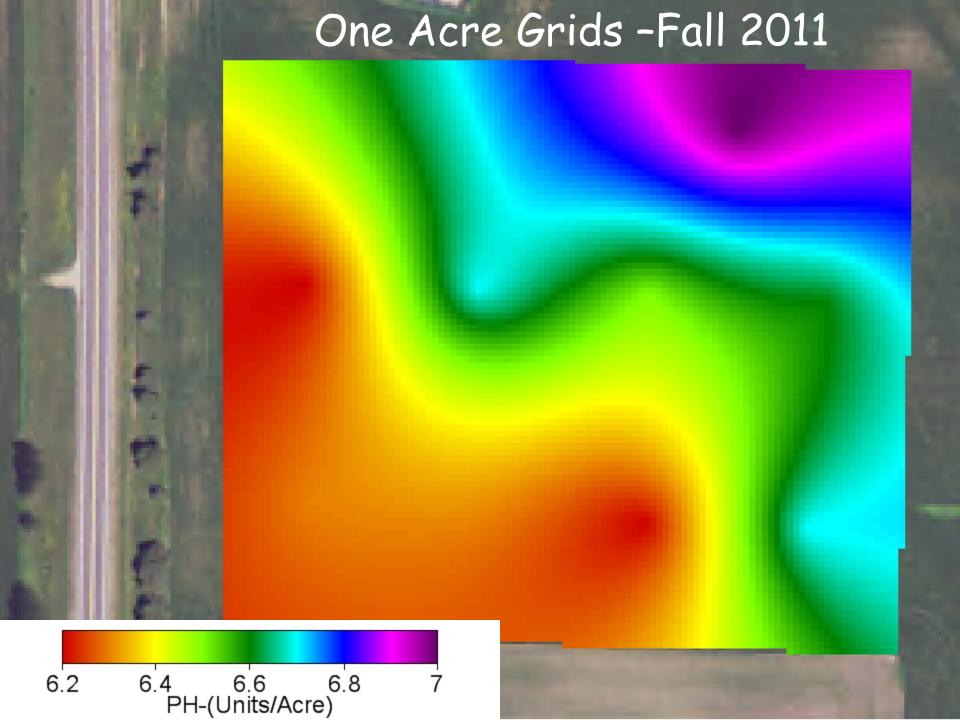


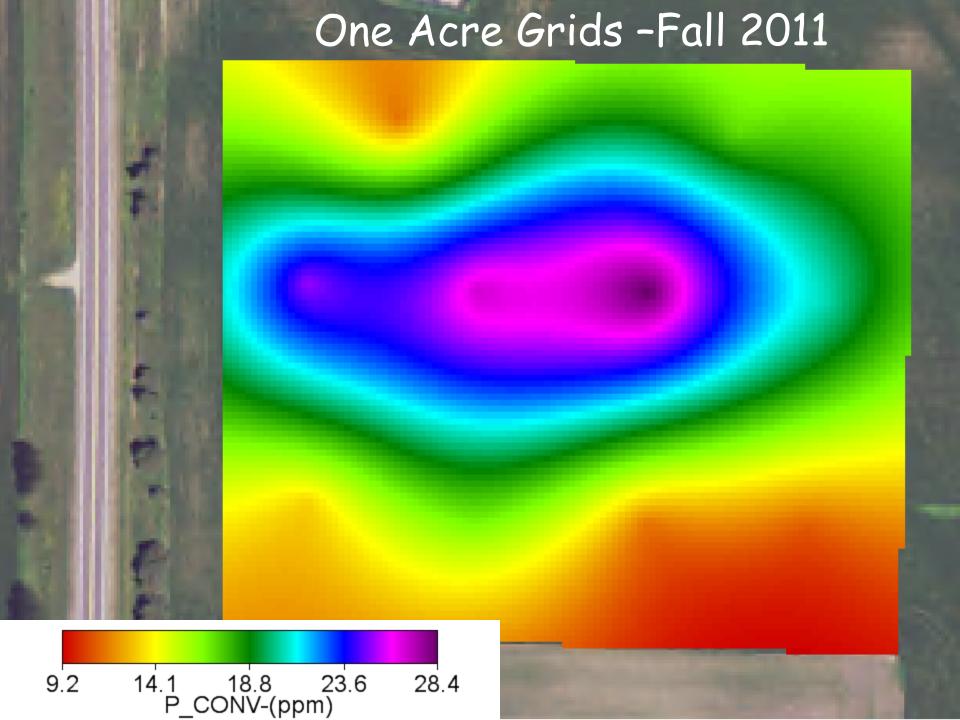


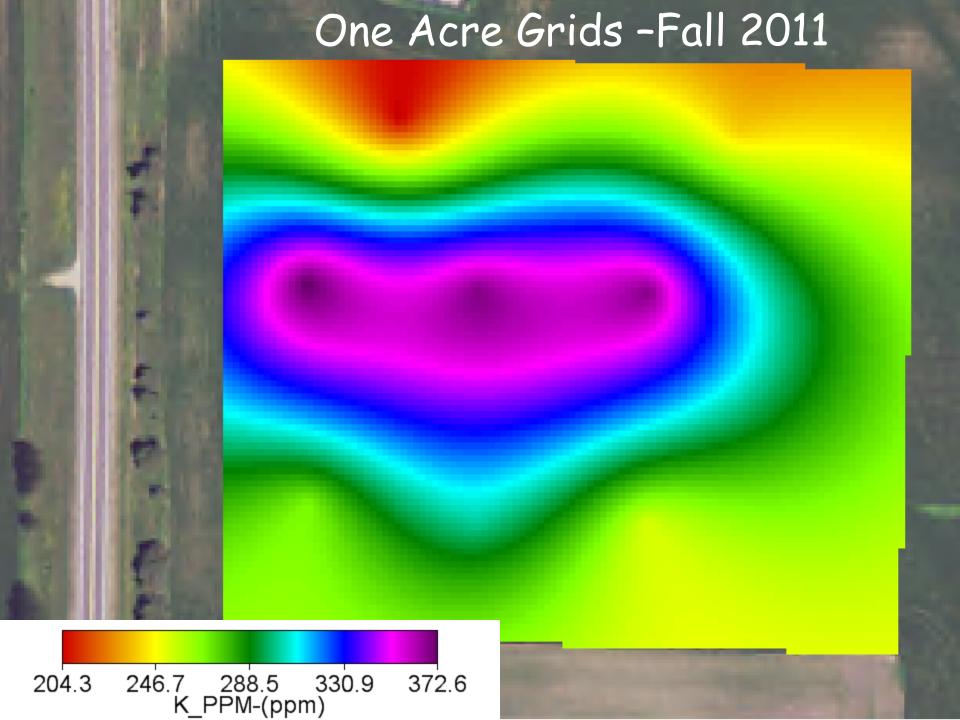




"... and we can save 700 lira by not taking soil tests."





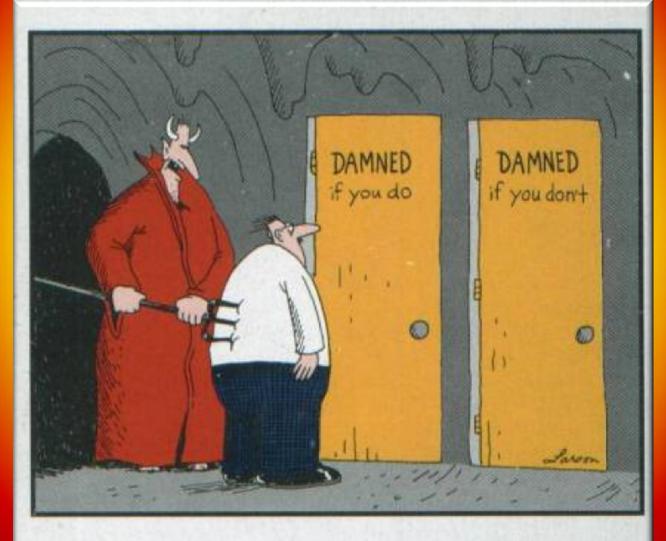


## Final Evaluations:

- More sample points need to be added to gain a better perspective
- More intensive sampling (interval between sampling; reducing grid size) could be a common practice.
- Extrapolating zones can be tricky, but could prove valuable.
- "Next-Level" precision services will be the driver for 2012 and beyond -keying in on nutrient relationships and grower profitability.
- Problem solving with precision could be the next increase in acres.



## When making agronomic choices stay away from these...



"C'mon, c'mon - it's either one or the other."

