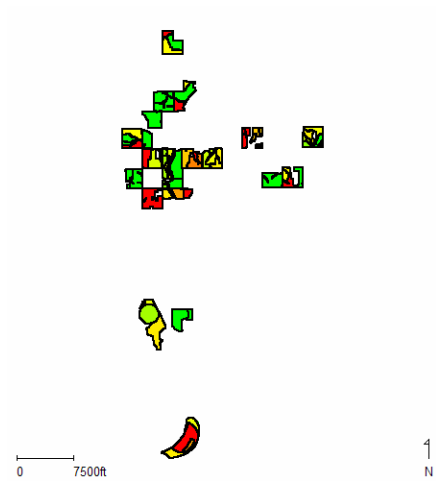


2006 Potash Study

By Lenhart Farms Inc.

Lenhart Farms Fields



Reason for applying for Grant

- To see if broadcasting 0-0-60 to a crop would effect the yield enough to more than pay for itself .
- In one year
- In 2nd year after application

- Soil testing was done by K-state and Midwest Lab

Potash price is \$265 per ton

Soybean price was \$4.89 year 1

\$5.95 year 2

Corn price was \$1.98 year 1

\$3.45 year 2

Milo price was \$3.47

1 Year Method

- On May 26th 2006 the 0-0-60 was broadcast at a 100# rate
- over the top of the corn
- just after planting of the soybeans
- and prior to the planting of the milo
- The location was GPS marked with the EZ-map program on an Ipaq

2 Year Method

- I applied 100# of 0-0-60 with a dry broadcast spreader in 120 ft strips
- Marked with GPS using EZ-map on my Ipaq
- The potash was applied on May 5th 2005
- The 2 strips in corn were applied just after planting
- The soybean strip was applied preplant

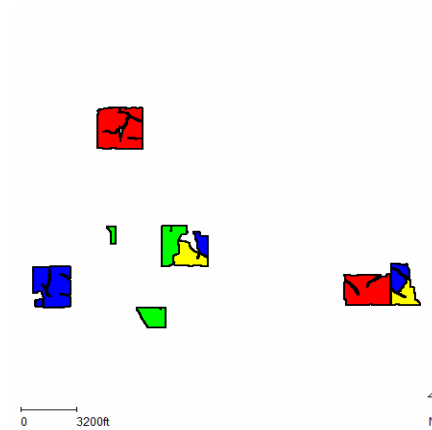
Yield data was collected with Agco fieldstar 1

- The location data shape files
- The yield data txt file
- Were imported into Agleader's SMS Basic for analysis
- Queried data was compiled in Excel

Analysis in SMS

- The yield files were added to the application file
- A polygon was drawn on top of each method (applied area and the non applied area on each side) then the data was queried under each polygon
- The Bu. / Acre for each polygon was then typed into an Excel spreadsheet
-

Potash Location
Green is fields in 2005
2006 fields Red corn , Blue soybeans &
Yellow milo



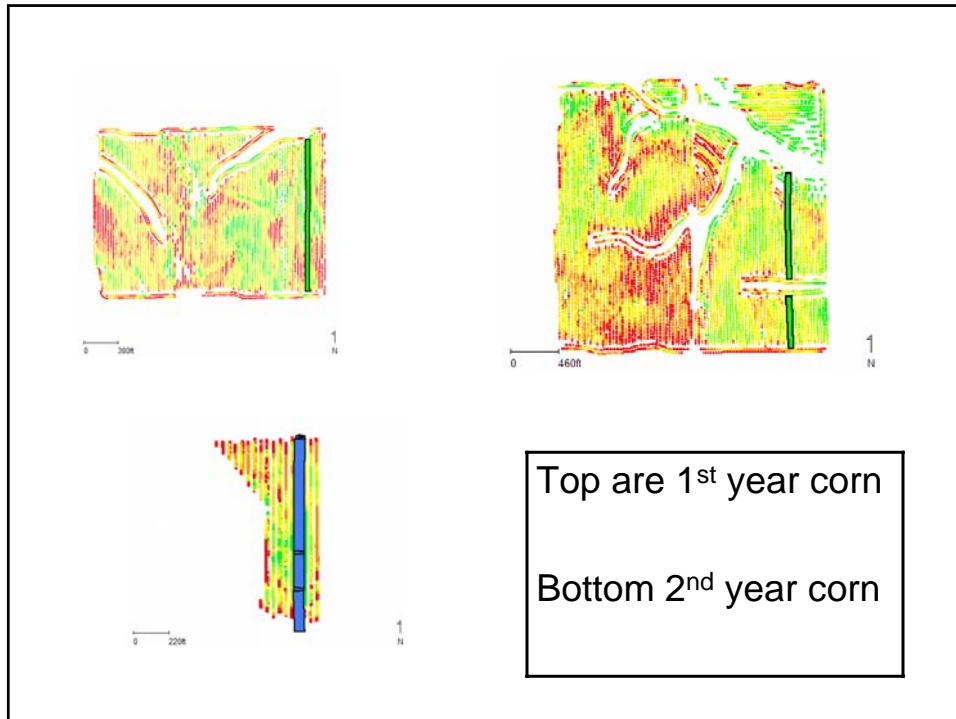
Before we go to the numbers
are there any questions on
what I have done so far ?

1st year application on corn

- North field
- Potash strip 59.4 Bu.
- On each side 60.15 & 68.19 Bu.
- 2nd strip K 63.86 Bu.
- On each side 66.4 & 65.67 Bu.
- East field
- Potash strip 64.8 Bu.
- On each side 64.7 & 64.22 Bu.

Corn 2nd year after applying

- 1st year
- Potash strip 112.67 bu.
- On each side 94.9 & 95.2
- 2nd Year
- Potash strip 70.7 Bu.
- On each side 65.8 & 65.7 Bu.



Results

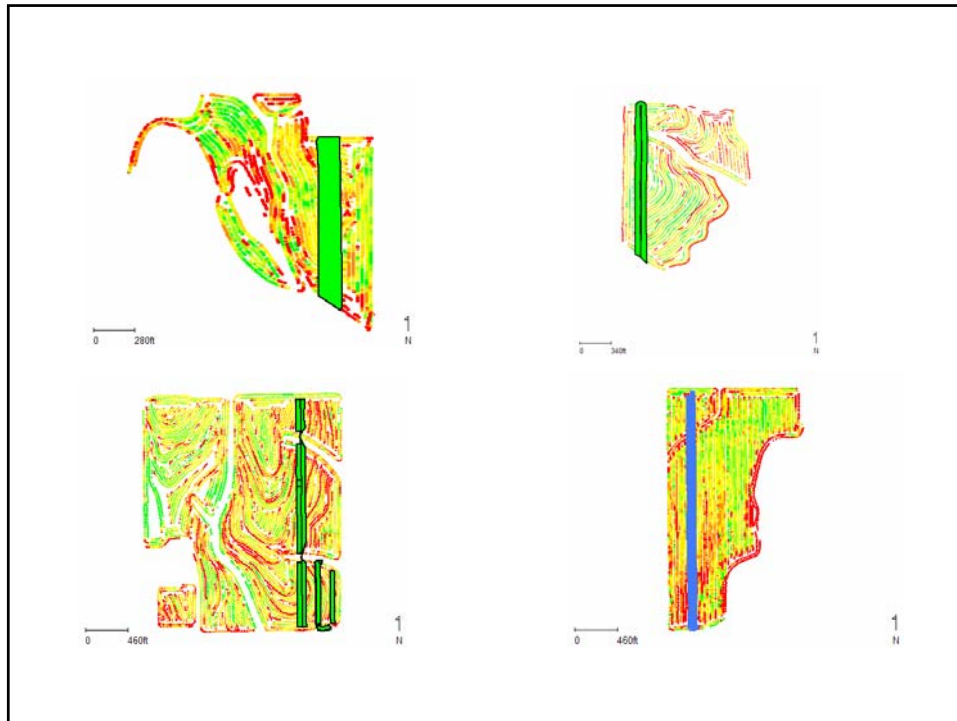
- One field had a yield loss
- One field increased yield but not enough
- Third field made money both years
- Why
 - Application timing ?
 - History ? Field 3 was pasture until 2001
 - Analysis method

1st year application on soybeans

- Patterson field
- Potash strip 44.33 Bu.
- Each side 42.46 & 45.63 Bu.
- Gardner field
- Potash strip 49.18 Bu.
- Each side 53.02 & 52.61 Bu.
- Lenhart Field
- Strip 1 39.98 Bu.
- Each side 41.73 & 42.74 Bu.
- Strip 2 39.85 Bu.
- Each side 39.88 & 38.82 Bu.
- Strip 3 41.09 Bu.
- Each side 40.49 & 37.63 Bu.

Soybeans 2nd year after applying

- 1st year Corn
- Potash strip 163.3 Bu.
- Each side 176.2 & 166.4 Bu.
- 2nd Year Soybeans
- Potash strip 64.61 Bu.
- Each side 64.62 & 65.07 Bu.



Results

- All fields' yields were similar or lower
- Why
 - Application timing ?
 - History ?
 - Analysis method ?

1st year application on milo

Gardner field

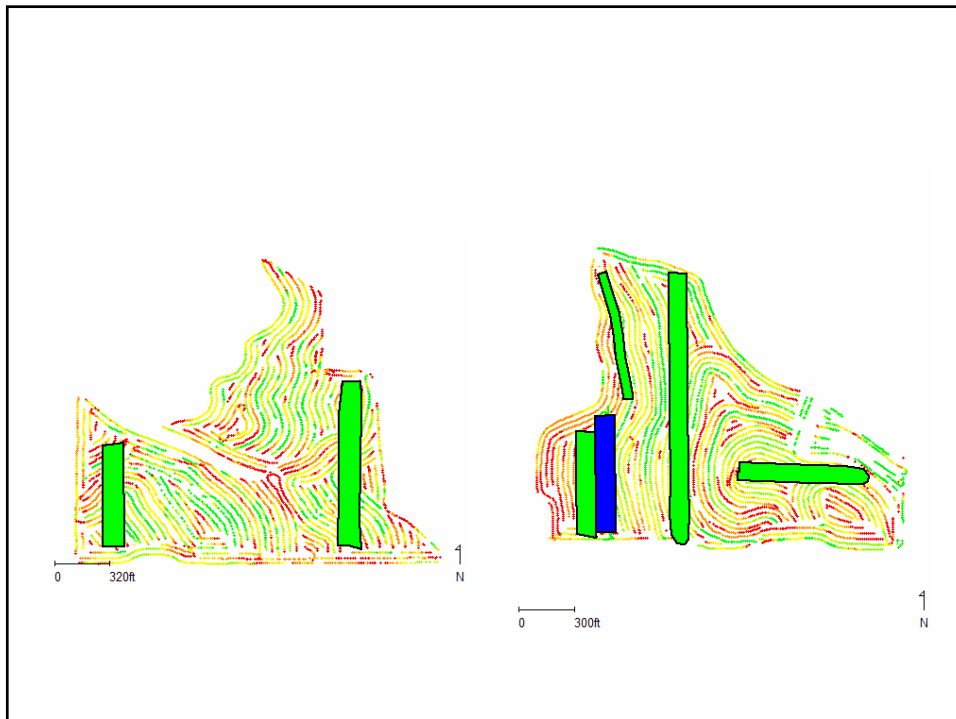
Strip 1 69.23 Bu.
beside 74.53 Bu.

Strip 2 68.68 Bu.
Beside 71.43 Bu.

Patterson 2X rate

None 85.94 Bu.
2X strip 67.8 Bu.
1X strip 58.1 Bu.
None 57.5 Bu.

- Patterson Field
- Strip 1 95.84 Bu.
- Each side 106.6 & 88.7 Bu.
- Strip 2 85.29 Bu.
- Beside 85.22 Bu.
- Strip 3 103.26 Bu.
- Beside 89.63 Bu.



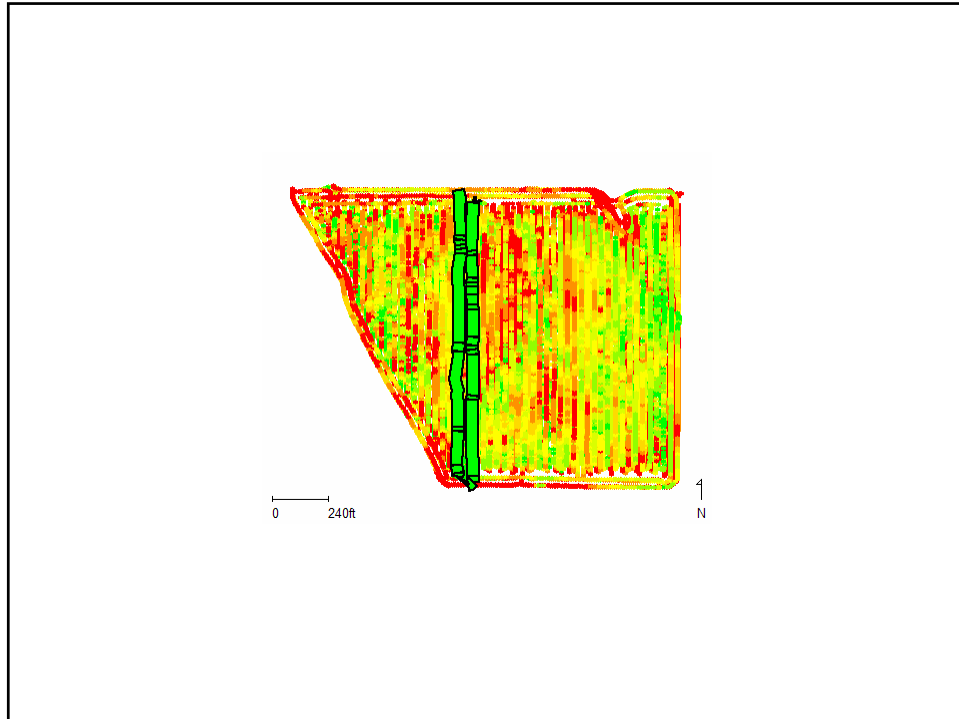
Results

- 2 out of the 7 strips might have paid, the other 5 lost money
- The 2X rate I decided it was not a useful test with only one location

- Why
 - Application timing ?
 - History ?
 - Analysis method ?

Wheat & Double crop soybeans 2nd year after applying

- | | |
|---------------------------------|------------------------------|
| • 1 st year soybeans | • 2 nd Year Wheat |
| • Potash strip 72.4 Bu. | • Potash strip 86.6 Bu. |
| • Each side 68.9 & 71.3 Bu. | • Each side 80.2 & 78.5 Bu. |
| | • Double Crop Beans |
| | • Potash strip 33.6 Bu. |
| | • Each side 32.1 & 32.2 Bu. |



Results

- First year it didn't pay but did increase yield
- Second year it caused increases in yields in the wheat and a small one in dc soybeans
- So after 2 years it more than paid

Over all summary

- Some fields it paid others it did not
- If it increased yields first year it also increased yields the 2nd year
- Not sure if I can come to a definite opinion if it is an application that will pay across our total farm

Questions