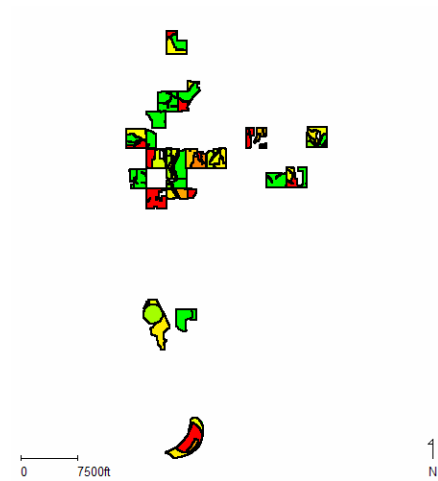


# 2006 Avail Study

By Lenhart Farms Inc.

## Lenhart Farms Fields



## Reason for applying for Grant

- To see if using 11-52-0 with Avail or 11-52-0 alone would have an effect on the yield enough to more than pay for itself .
- Avail cost was \$100 ton so we needed an increase of 2/3 of a bushel at \$4.50 wheat

## Methods used to collect data

- Flexicoil task controller was used to log location of strips
- Trimble EZ map on an Ipaq to mark application strips.
- Agco Fieldstar 1 to collect yield data
- Agleader SMS basic to map flexicoil log files & query data
- Excel to compile queried data

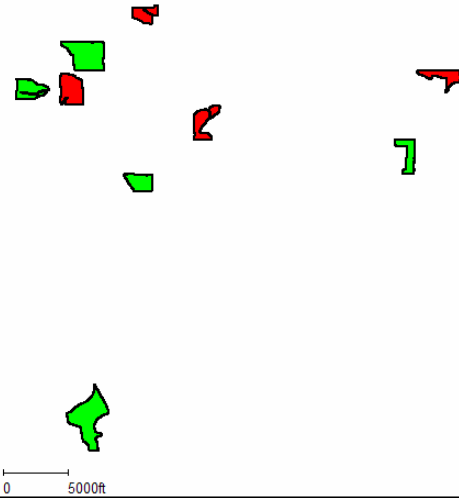
## Analysis in SMS

- The yield files were added to the application files
- 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
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## Method of application

- When seeding wheat
- Tank 1 on the air seeder had 11-52-0
- Tank 2 had 11-52-0 with avail
- Tank 3 had wheat seed
- Flipped switches between 1 & 2 in every field
- Some fields had different rates to match \$ amount 73# no avail = 55# with avail or 41# with avail= 55# without avail

All locations test medium to high in P  
red = with and without avail  
Green = with & without at different rate



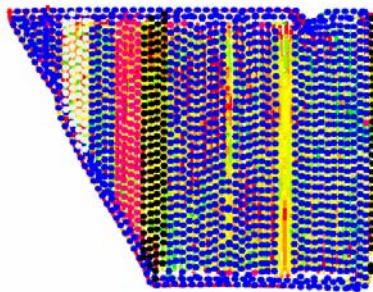
- First 2 fields have strips of no 11-52-0 compared to 55# of 11-52-0

Blue = no avail    Red = 73# no avail  
Black = with avail    Yellow = no fert.



- Yield
- With 11-52-0 52.72
- No 11-52-0 47.98
- With 11-52-0 54.78
- So a 5.7 bu. Increase
- Double crop beans no 11-52-0 was about .5 bu. better

Blue = no avail    Red = 73# no avail  
Black = with avail    Yellow = no fert.

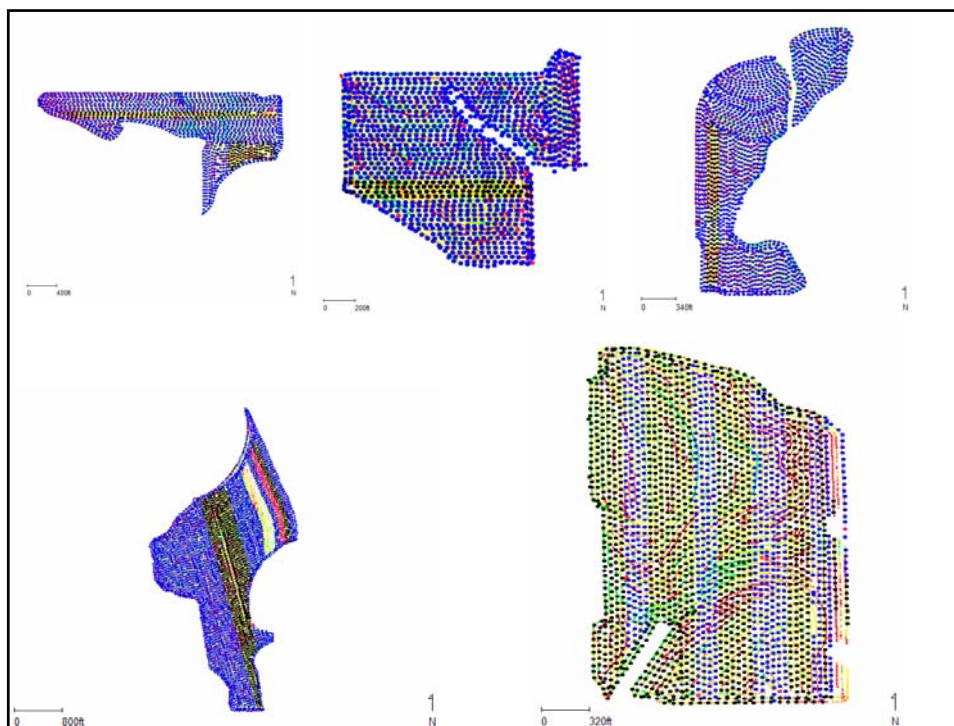


- Yield
- With 11-52-0 76.28
- No 11-52-0 79.43
- With 11-52-0 81.47
- So a 1.1 bu. decrease
- Double crop beans no 11-52-0 was about .6 bu. better

	Wheat	DC Beans		Wheat	DC Beans
no avail	52.72	29.34	no avail	76.28	31.67
No Fert	47.98	29.84	No Fert	79.43	32.6
no avail	54.78	27.87	no avail	81.47	34.85

So I have decided that putting  
 11-52-0 with the seed at drilling  
 pays in increased yield.

- These 5 locations compare 11-52-0 with Avail to strips without Avail.

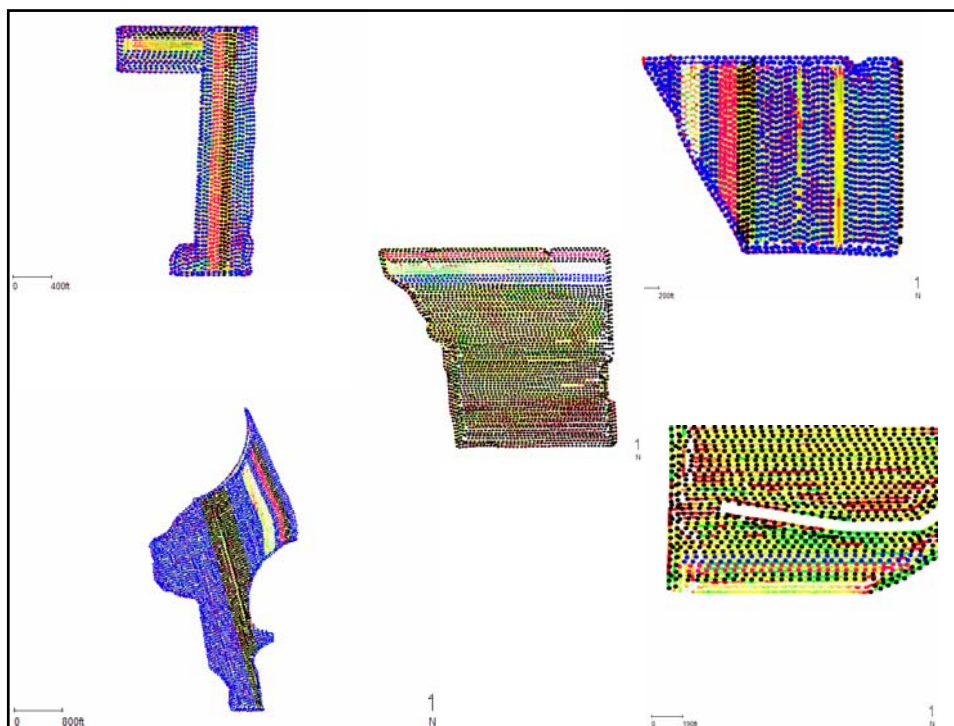


	Avail	None			Avail	none	
F1 a	41.1	44.0		F5 a	42.8	43.1	
F1 b	34.2	35.4		F5 b	47.8	43.1	
F1 c	41.3	46.5		F5 c	46.7	48.9	
F2 a	36.6	38.2		F5 d	46.4	48.9	
F2 b	36.6	35.1		F5 e	45.2	43.5	
F3 a	30.4	25.5		F5 f	39.2	41.2	
F3 b	30.4	31.6					
F4 a	53.3	53.1		Total	44.7	44.8	
F4 b	59.3	60.3					
						Avail	none
total	40.4	41.1		over	all	42.1	42.6

- So in these 15 comparisons it lost about \$5.00 an acre. Cost plus loss in yield.

These 5 comparisons are different rates as to match \$ of each.

- The blue strips 55# of 11-52 without avail
- The black strips 55# of 11-52 with avail
- The red strips 73# of 11-52 without avail
- The gray strips 41# of 11-52 with avail



	55#	55#+		73#	55#+		55#	41#+	
F 1	54.0	49.7		57.4	49.7				g
F 2	82.8	80.2		82.7	80.2		82.8	82.6	b
F 3	59.5	58.6		61.8	58.6		59.5	57.7	l
F 4	55.3	59.1		55.6	59.1		55.3	55.5	m
F 5	49.1	51.3		49.9	51.3		49.1	47.7	m
5 field									
Avg.	60.1	59.8		61.4	59.8				
4 field									
Avg.	61.7	62.3		62.5	62.3		61.7	61.4	

- In 2 out of the 5 the 55# with avail was the most profitable.
- In 1 the 55# without was the most profitable
- In 2 the 73# of 11-52-0 was the most profitable.
  
- Over all in these 5 tests the 73# averaged the most profitable. But only by .2 of a Bushel at \$4.50 wheat

In the 20 side by side comparisons without avail had about the \$ equivalent of 1 bushel better.

- 55# without avail averaged 46.98 Bu. / acre
- 55# with avail averaged 46.53 Bu. / acre
- On 6 strips avail was better by 3.1 Bu. - .6 = 2.5 Bu.
- Also 1 strip it was .2 Bu. better
- The other strips averaged 1.85 Bu./ acre worse

## Summary

- I have decided it pays to put starter fertilizer with wheat
- Avail over all lost money.
- The 73# rate of 11-52-0 might have been the best. But was that because of the 2# more of N with the seed?
- Wish I would have had a 41# rate without avail

## Questions