Assessing Starter Fertilizer Rates on Corn in High Fertility Situations

Oxford Soil & Crop Improvement Association Major Grant Project
2009


98% OF CANADIANS SAY 'OH SHIT'
BEFORE
GOING IN THE DITCH ON A SLIPPERY
ROAD.
THE OTHER 2% ARE FROM OXFORD
COUNTY AND SAY, 'HOLD MY BEER
I'M GONNA TRY SOMETHING .'

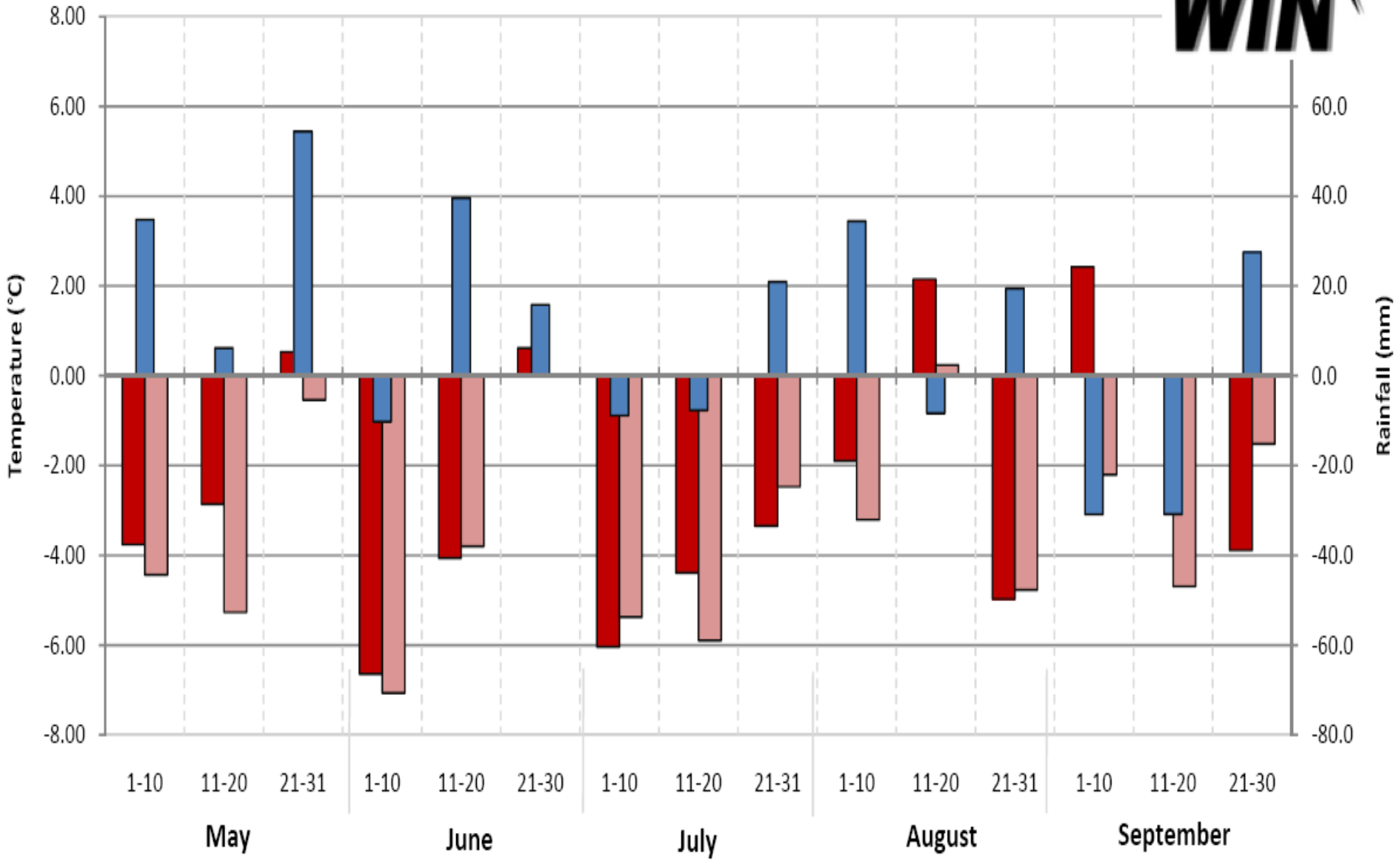
OBJECTIVE:

- To determine if high fertility soils with regularly applied manure would have a corn yield or moisture benefit from starter fertilizer

METHOD:

- Liquid Starter fertilizer applied at ½ rate, normal rate and no starter – 6 sites (8 planted)
- Dry starter – 2 sites with or without starter fertilizer

Weather Deviation from Normal
Lucan 2009



Liquid Fertilizer Results

	Yield			Moisture		
	none	2.5 gal	5 gal	none	2.5 gal	5 gal
Perth 1		169.7	174.2		27.6	27.5
Perth 2		175.4	184.5		26.9	26.0
Waterloo 1	151.6	157.2	158.4	30.1	30.0	30.0
Waterloo 2	151.6	157.5	161.8	30.1	30.0	29.4
Tavistock 1	174.2	169.4	168.7	30.7	31.2	31.1
Tavistock 2	174.2	177.9	169.9	30.7	30.7	30.6
Middlesex	165.6		173.2	27.6		26.5
Avg 4 plots	162.9	165.5	164.7	30.4	30.5	30.3
Avg 5 plots	163.4		166.4	29.8		29.5
Avg 6 plots		167.9	169.6		29.4	29.1

Soil test values 20+ for phosphorus

Dry Starter

LOCATION	YIELD		BENEFIT OVER NO STARTER (BU/ AC)	MOISTURE		DIFFERENCE OVER NO STARTER
	Without	With		Without	With	
Foldens	221	228	**7.3**	26.7	25.7	**-1.03**
Embro	154	158	**4**	26.1	25.8	**-0.3**

Soil test values 20+ for phosphorus

Conclusions

- Small yield increase even with high soil test
- Moisture gain less evident 2009
- No clear trend to higher starter rates
- Dry starter yields appeared more positive
- Moisture gain evident with dry