Exhibit SD
5
Klocke 2/14/12
Patterson Reporting & Video

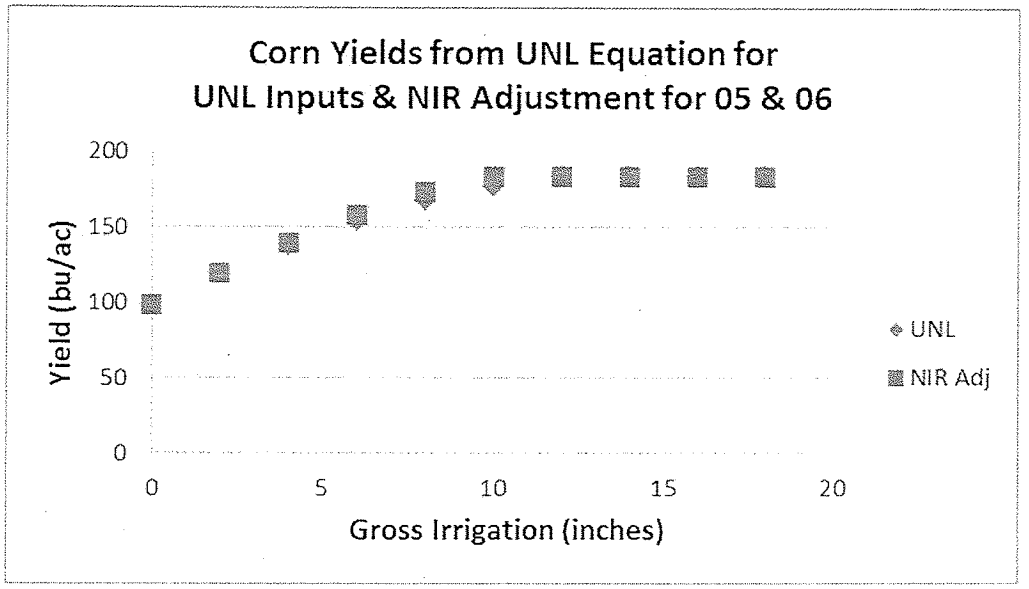
Yield Calculations using UNL Equation For Republic County

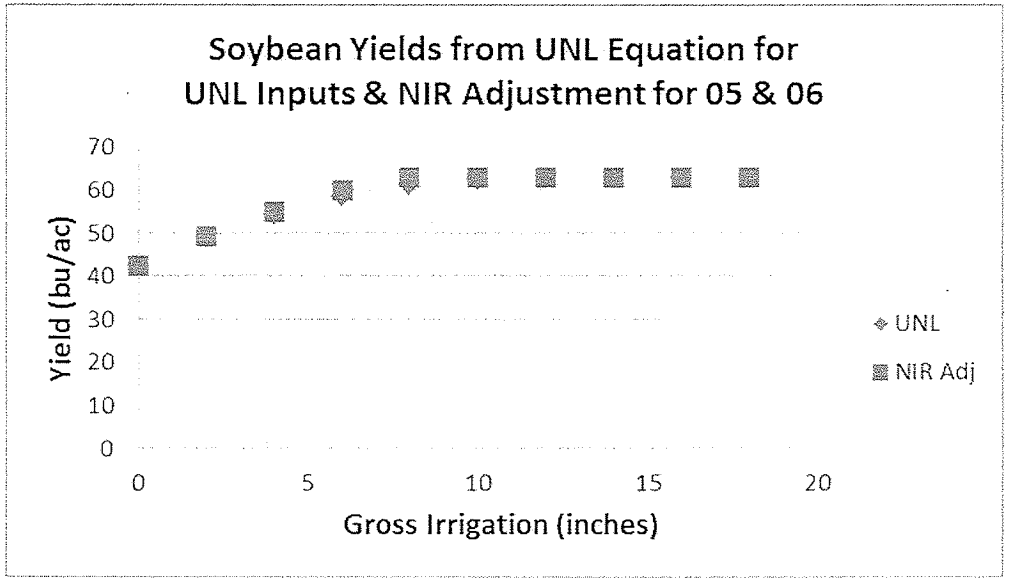
Table 1. Inputs for UNL Equation to Calculate Yields

	NIR	ET inches	Y_{ni}/Y_{max}	Full Yield	"Little b"	Non-Irrigated Yield	Gross Irr	AE	Beta
	inches	inches		bu/ac	bu/ac-inch	bu/ac	inches	%	
Corn CP UNL	10.1	7.5	0.54	182	11.1	98	11.9	85.0	0.63
Corn CP witn NIR Adj	8	7.5	0.54	182	11.1	98	9.4	85.0	0.80
Soybean CP UNL	8.6	5.7	0.68	63	3.5	43	10.1	85.0	0.56
Soybean CP with NIR Adj	6.6	5.7	0.68	63	3.5	43	7.8	85.0	0.73

Table 2. Calculated Yield (bu/ac) for Corn and Soybean center pivot with UNL formula

		Gross Irrigation									
		0	2	4	6	8	10	12	14	16	18
		inches	inches	inches	inches	inches	inches	inches	inches	inches	inches
Corn CP RMA	Yield (bu/ac)	98	120	139	155	168	178	184	184	184	184
Corn CP with NIR Adj	Yield (bu/ac)	98	120	140	159	174	184	184	184	184	184
Corn Yield Difference		0	0	2	4	6	6	0	0	0	0
Soybean CP RMA	Yield (bu/ac)	43	49	54	59	61	63	63	63	63	63
Soybean CP with NIR Adj	Yield (bu/ac)	43	49	55	60	63	63	63	63	63	63
Soybean Yield Difference	Yield (bu/ac)	0	0	1	1	2	0	0	0	0	0


Corn Yields from UNL Equation for
UNL Inputs & NIR Adjustment for 05 & 06
Yield (bu/ac)
200
150
100
50
0
0
5
10
15
20
Gross Irrigation (inches)
UNL
NIR Adj


Soybean Yields from UNL Equation for
UNL Inputs & NIR Adjustment for 05 & 06
Yield (bu/ac)
70
60
50
40
30
20
10
0
0
5
10
15
20
Gross Irrigation (inches)
UNL
NIR Adj