

Corn Nutrient Calculator

150	BU Volume	Total Lbs Needed
1.33333	N Conversion Ratio	200
0.60000	P2O5 Conversion Ratio	90
1.33333	K2O Conversion Ratio	200
0.50000	SO4 Conversion Ratio	75

Input cells are Blue
Calculated cells are Green

Monday 5/12/2014 5:0 PM

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Client:	
Field/Crop:	
Licensed to:	ProfitPro, LLC
User:	Dr. Jim Ladlie

Nutrient Management:

Nitrogen Management:	
1.00%	Organic Matter % (O.M.)
50	Nitrogen Credit (Lbs)
100	Soil Report - Nitrate / Ammonium (Lbs)

200	N Lbs Needed for BU Volume
(20)	O.M.Conv. To Lbs.
(50)	N.Cr. Lbs
(100)	Soil Report Lbs
82	Soil Report Lbs - Time Depletion
= 112	Net Supplemental N Needed

Comments:

1% = 20lbs. Stable, released over growing cycle based upon need
Released over growing cycle based upon need
Less stable, released within 6 weeks of growing cycle. Not retained in soil.
Nitrogen released during period not utilized by the crop needs not available for later utilization
See Growth Cycle Deficiency Chart & Graph for deficiency periods.

P2O5 Management:

30	Soil Report Lbs - (ppm x 2 = Lbs)
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90	P2O5 Lbs Needed for BU Volume
(30)	Soil Report Lbs
= 60	Net Supplemental P2O5N Needed

Released over growing cycle based upon need
See Growth Cycle Deficiency Chart & Graph for deficiency periods.

K2O Management:

25	Cation Exchange Capacity (CEC)
150	Soil Report Lbs - (ppm x 2 = Lbs)

200	K2O Lbs Needed for BU Volume
79	CEC Factor Adj.
(53)	SOLU-PLKS / Bio Release
(150)	Soil Report Lbs
= 76	Net Supplemental K2O Needed

Various ratios - Neg. anions hold positive charged K preventing release
Solu-Plks neutralizes 2/3 of CEC holding capacity
Released over growing cycle based upon need
See Growth Cycle Deficiency Chart & Graph for deficiency periods.

SO4 Management:

30	Soil Report Lbs - (ppm x 2 = Lbs)
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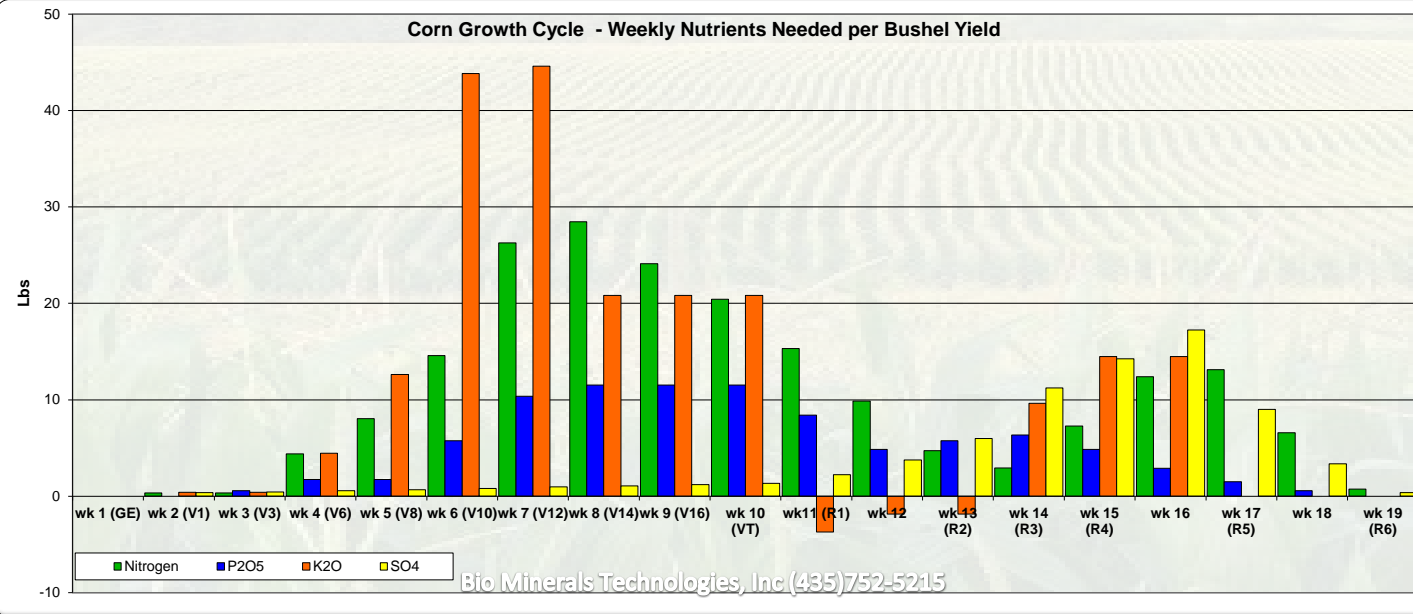
75	SO4 Lbs Needed for BU Volume
(30)	Soil Report Lbs
= 45	Net Supplemental SO4 Needed

Released over growing cycle based upon need
See Growth Cycle Deficiency Chart & Graph for deficiency periods.

Growth Stage	GE	V1	V3	V6	V8	V10	V12	V14	V16	VT	R1	R2	R3	R4	R5	R6			
Lbs.	wk 1 (GE)	wk 2 (V1)	wk 3 (V3)	wk 4 (V6)	wk 5 (V8)	wk 6 (V10)	wk 7 (V12)	wk 8 (V14)	wk 9 (V16)	wk 10 (VT)	wk11 (R1)	wk 12	wk 13 (R2)	wk 14 (R3)	wk 15 (R4)	wk 16	wk 17 (R5)	wk 18	wk 19 (R6)
Nitrogen																			
Weekly	0	0	0	4	8	15	26	28	24	20	15	10	5	3	7	12	13	7	1
Weekly %	0.00%	0.18%	0.18%	2.19%	4.02%	7.30%	13.14%	14.23%	12.05%	10.22%	7.66%	4.93%	2.37%	1.46%	3.65%	6.20%	6.57%	3.29%	0.36%
Running %	0.00%	0.18%	0.36%	2.55%	6.57%	13.87%	27.01%	41.24%	53.29%	63.51%	71.17%	76.10%	78.47%	79.93%	83.58%	89.78%	96.35%	99.64%	100.00%
Run Total	0	0	1	5	13	28	54	82	107	127	142	152	157	160	167	180	193	199	200
P2O5																			
Weekly	0	0	1	2	2	6	10	12	12	12	8	5	6	6	5	3	1	1	
Weekly %	0.00%	0.00%	0.64%	1.93%	1.93%	6.41%	11.54%	12.82%	12.82%	12.82%	9.35%	5.39%	6.41%	7.05%	5.39%	3.21%	1.67%	0.64%	
Running %	0.00%	0.00%	0.64%	2.58%	4.51%	10.92%	22.45%	35.27%	48.08%	60.90%	70.25%	75.64%	82.04%	89.09%	94.48%	97.69%	99.36%	100.00%	
Run Total	0	0	1	2	4	10	20	32	43	55	63	68	74	80	85	88	89	90	
K2O (Before CEC Factor Adj.)																			
Weekly	0	0	0	4	13	44	45	21	21	21	-4	-2	-2	10	14	14			
Weekly %	0.00%	0.20%	0.20%	2.23%	6.32%	21.92%	22.30%	10.41%	10.41%	10.41%	-1.86%	-0.93%	-0.93%	4.83%	7.25%	7.25%			
Running %	0.00%	0.20%	0.40%	2.63%	8.95%	30.87%	53.17%	63.58%	73.99%	84.39%	82.54%	81.61%	80.68%	85.50%	92.75%	100.00%			
Run Total	0	0	1	5	18	62	106	127	148	169	165	163	161	171	186	200			
K2O - Adj. for CEC factor																			
Weekly	0	1	1	6	18	61	62	29	29	29	-5	-3	-3	13	20	20			
Run Total	0	1	2	8	26	87	149	178	207	236	231	228	225	238	258	278			
K2O - Adj. for CEC factor with SOLU-PLKS / Bio Release																			
Weekly	0	0	0	5	14	50	50	24	24	24	-4	-2	-2	11	16	16			Lbs Release due to SOLU-PLKS
Run Total	0	0	0	5	19	69	119	143	167	191	187	185	183	194	210	226			52
SO4																			
Weekly	0	0	0	1	1	1	1	1	1	1	2	4	6	11	14	17	9	3	0
Weekly %	0.00%	0.50%	0.60%	0.75%	0.90%	1.10%	1.30%	1.45%	1.60%	1.80%	3.00%	5.00%	8.00%	15.00%	19.00%	23.00%	12.00%	4.50%	0.50%
Running %	0.00%	0.50%	1.10%	1.85%	2.75%	3.85%	5.15%	6.60%	8.20%	10.00%	13.00%	18.00%	26.00%	41.00%	60.00%	83.00%	95.00%	99.50%	100.00%
Run Total	0	0	0	1	2	3	4	5	6	8	10	14	20	31	45	62	71	75	75

Weekly Nutrition Needs per BU Volume Range:

	wks / Grwth Stage	wk 1 (GE)	wk 2 (V1)	wk 3 (V3)	wk 4 (V6)	wk 5 (V8)	wk 6 (V10)	wk 7 (V12)	wk 8 (V14)	wk 9 (V16)	wk 10 (VT)	wk11 (R1)	wk 12	wk 13 (R2)	wk 14 (R3)	wk 15 (R4)	wk 16	wk 17 (R5)	wk 18	wk 19 (R6)
Nitrogen	150	0	0	0	4	8	15	26	28	24	20	15	10	5	3	7	12	13	7	1
P2O5	150	0	0	1	2	2	6	10	12	12	8	5	6	6	5	3	1	1	1	
K2O	150	0	0	0	4	13	44	45	21	21	21	-4	-2	-2	10	14	14			
SO4	150	0	0	0	1	1	1	1	1	1	2	4	6	11	14	17	9	3	0	

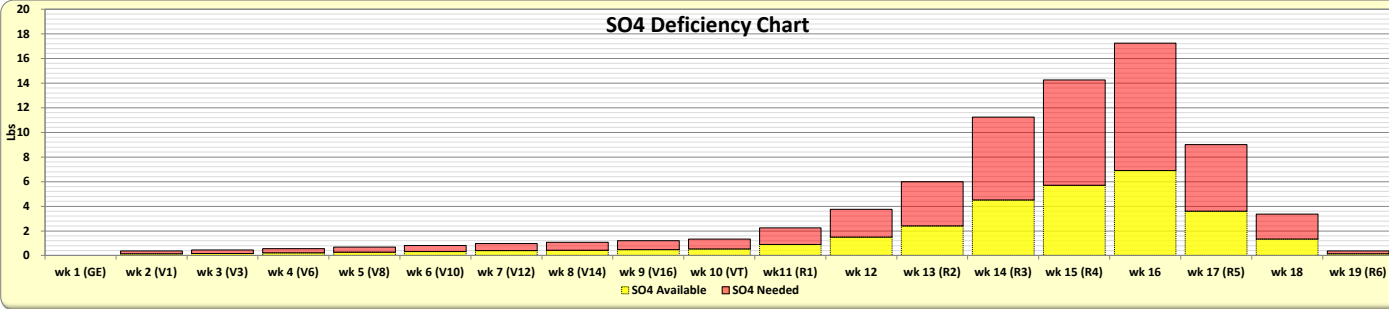
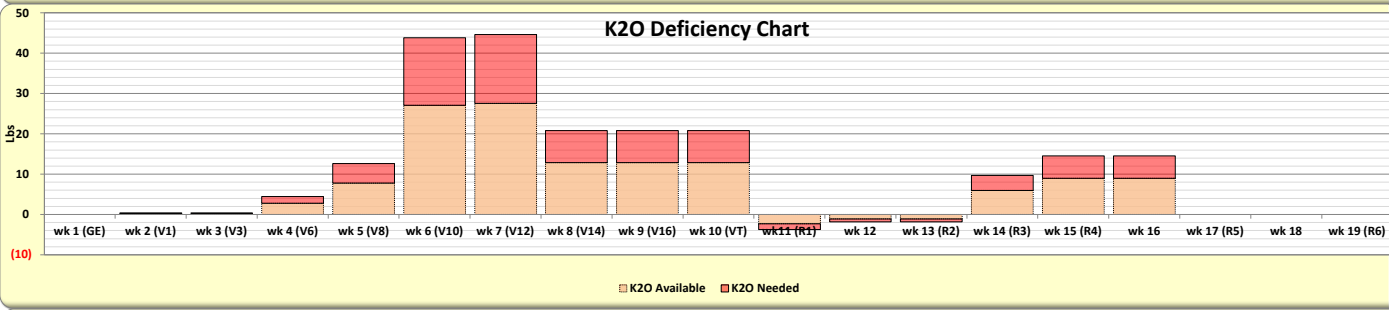
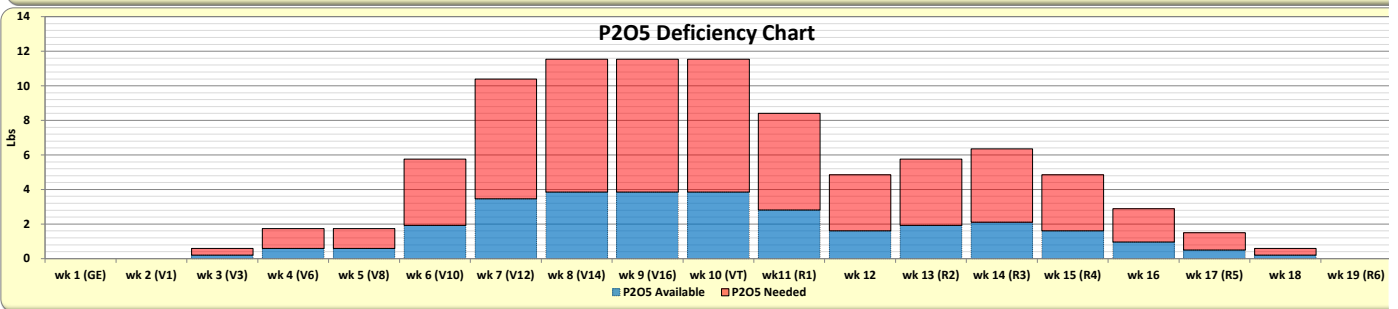
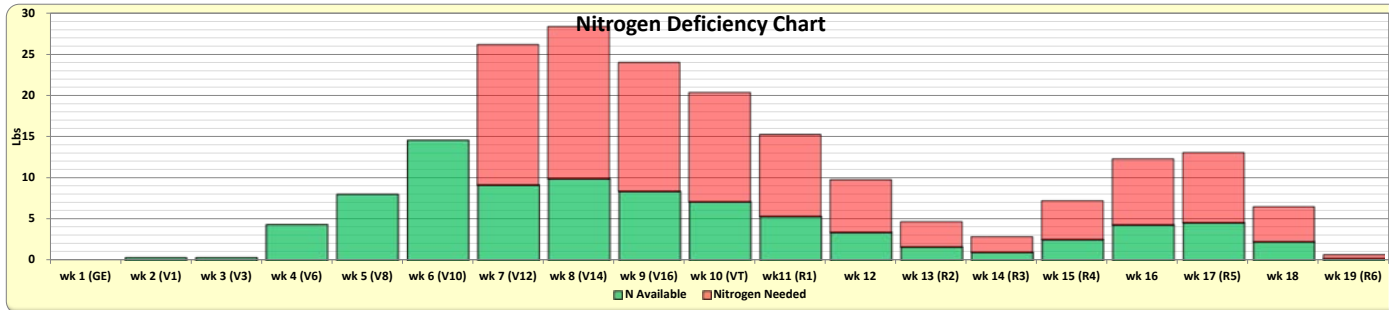


Nutrient Management Calculations:

Growth Stage	GE	V1	V3	V6	V8	V10	V12	V14	V16	VT	R1	R2	R3	R4	R5	R6				
Total lbs.	wk 1 (GE)	wk 2 (V1)	wk 3 (V3)	wk 4 (V6)	wk 5 (V8)	wk 6 (V10)	wk 7 (V12)	wk 8 (V14)	wk 9 (V16)	wk 10 (VT)	wk11 (R1)	wk 12	wk 13 (R2)	wk 14 (R3)	wk 15 (R4)	wk 16	wk 17 (R5)	wk 18	wk 19 (R6)	
Nitrogen Needed																				
Needed	200.00	0.00	0.36	0.36	4.38	8.04	14.60	26.28	28.46	24.10	20.44	15.32	9.86	4.74	2.92	7.30	12.40	13.14	6.58	0.73
O.M.	(20.00)	0.00	(0.04)	(0.04)	(0.44)	(0.80)	(1.46)	(2.63)	(2.85)	(2.41)	(2.04)	(1.53)	(0.99)	(0.47)	(0.29)	(0.73)	(1.24)	(1.31)	(0.66)	(0.07)
N.Cr.	(50.00)	0.00	(0.09)	(0.09)	(1.09)	(2.01)	(3.65)	(6.57)	(7.11)	(6.02)	(5.11)	(3.83)	(2.46)	(1.18)	(0.73)	(1.82)	(3.10)	(3.28)	(1.64)	(0.18)
Soil Rpt	(100.00)	(16.67)	(16.67)	(16.67)	(16.67)	(16.67)	(16.67)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S.R. Depletion	81.97	16.67	16.43	16.43	13.82	11.44	7.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Deficiency	111.97	0.00	0.00	0.00	0.00	0.00	17.08	18.50	15.66	13.29	9.96	6.41	3.08	1.90	4.74	8.06	8.54	4.28	0.47	
N Available																				
	0.00	0.36	0.36	4.38	8.04	14.60	9.20	9.96	8.43	7.15	5.36	3.45	1.66	1.02	2.55	4.34	4.60	2.30	0.26	
P205 Needed																				
Needed	90.00	0.00	0.00	0.58	1.74	1.74	5.77	10.38	11.53	11.53	11.53	8.42	4.85	5.77	6.35	4.85	2.89	1.50	0.58	
Soil Rpt	(30.00)	0.00	0.00	(0.19)	(0.58)	(0.58)	(1.92)	(3.46)	(3.84)	(3.84)	(3.84)	(2.81)	(1.62)	(1.92)	(2.12)	(1.62)	(0.96)	(0.50)	(0.19)	
Net Deficiency	60.00	0.00	0.00	0.39	1.16	1.16	3.84	6.92	7.69	7.69	7.69	5.61	3.23	3.84	4.23	3.23	1.93	1.00	0.39	
P205 Available																				
	0.00	0.00	0.19	0.58	0.58	1.92	3.46	3.84	3.84	3.84	2.81	1.62	1.92	2.12	1.62	0.96	0.50	0.19		
K2O Needed																				
Needed	200.00	0.00	0.40	0.40	4.46	12.64	43.85	44.61	20.81	20.81	20.81	(3.72)	(1.86)	(1.86)	9.66	14.50	14.50			
CEC Adj.	79.11	0.00	0.16	0.16	1.76	5.00	17.34	17.64	8.23	8.23	8.23	(1.47)	(0.74)	(0.74)	3.82	5.73	5.73			
Solu-Pkgs Adj.	(53.00)	0.00	(0.11)	(0.11)	(1.17)	(3.33)	(11.56)	(11.76)	(5.49)	(5.49)	(5.49)	0.98	0.49	0.49	(2.55)	(3.82)	(3.82)			
Soil Rpt	(150.00)	0.00	(0.30)	(0.30)	(3.34)	(9.48)	(32.89)	(33.45)	(15.61)	(15.61)	(15.61)	2.79	1.39	1.39	(7.24)	(10.87)	(10.87)			
Net Deficiency	76.11	0.00	0.15	0.15	1.70	4.83	16.74	17.03	7.94	7.94	7.94	(1.42)	(0.71)	(0.71)	3.68	5.53	5.53			
K2O Available																				
	0.00	0.25	0.25	2.75	7.81	27.11	27.57	12.87	12.87	12.87	(2.30)	(1.14)	(1.14)	5.97	8.96	8.96				
SO4 Needed																				
Needed	75.00	0.00	0.38	0.45	0.56	0.68	0.83	0.98	1.09	1.20	1.35	2.25	3.75	6.00	11.25	14.25	17.25	9.00	3.38	0.38
Soil Rpt	(30.00)	0.00	(0.15)	(0.18)	(0.23)	(0.27)	(0.33)	(0.39)	(0.44)	(0.48)	(0.54)	(0.90)	(1.50)	(2.40)	(4.50)	(6.70)	(6.90)	(3.60)	(1.35)	(0.15)
Net Deficiency	45.00	0.00	0.23	0.27	0.34	0.41	0.50	0.59	0.65	0.72	0.81	1.35	2.25	3.60	6.75	8.55	10.35	5.40	2.03	0.23
SO4 Available																				
	0.00	0.15	0.18	0.23	0.27	0.33	0.39	0.44	0.48	0.54	0.90	1.50	2.40	4.50	5.70	6.90	3.60	1.35	0.15	

Weekly Deficiency Accumulations Totals:

Total lbs.	wk 1 (GE)	wk 2 (V1)	wk 3 (V3)	wk 4 (V6)	wk 5 (V8)	wk 6 (V10)	wk 7 (V12)	wk 8 (V14)	wk 9 (V16)	wk 10 (VT)	wk11 (R1)	wk 12	wk 13 (R2)	wk 14 (R3)	wk 15 (R4)	wk 16	wk 17 (R5)	wk 18	wk 19 (R6)
Nitrogen	0	0	0	0	0	0	17	36	51	65	74	81	84	86	91	99	107	111	112
P205	0	0	0	2	3	7	13	21	29	37	42	45	49	53	57	59	60	60	
K2O	0	0	0	2	7	24	41	49	56	64	63	62	62	65	71	76			
SO4	0	0	0	1	1	2	2	3	4	5	6	8	12	18	27	37	43	45	45





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