



**CROP SERVICES
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Grower	Date of Report	Submitted By	Field or Sample Name or #	Lab #	CEC	Humus %	Soil pH	Crop
Progressive Grower	02/03/10	Your Dealer	Lower Pasture	29	9.74	1.93	5.7	Hay

CEC (Cation Exchange Capacity) Test Results												Trace Minerals					
Phos M3 P2O5 lbs/A 300 - 500	Calcium Ca lbs/A	Magnesium Mg lbs/A	Potassium K lbs/A	Sodium Na lbs/A	Percent Base Saturation						Sulfur S ppm 50 - 100	Alum Al ppm < 1400	Boron B ppm 1.5 - 4	Copper Cu ppm 2.5 - 6	Iron Fe ppm 50 - 300	Manganese Mn ppm 25 - 150	Zinc Zn ppm 7 - 15
					%Ca	%Mg	%K	%Na	%Other	%H							
14	1993	240	274	30	51.16	14.55	3.61	0.68	6.00	24.00	24	794	<0.20	0.75	290	101	1.35

LaMotte Soluble Readings in #/A							
Phosphate P2O5 200-400	Calcium Ca 2000-5600	Magnesium Mg 280 - 800	Potassium K 100 - 200	Sodium Na 30 - 70	ERGS*	Nitrate NO3 40 - 80	Ammonia NH4 40 - 80
					200-800 800 - 1200*		
23	507	15.60	300	0.45	37	2	16

	Optional Tests:	Range	Amount
test 1	Cobalt in ppm	1 - 3	1.2
test 1	Molybdenum in ppm	1 - 2	0.2
test 2	Nickel in ppm	2 - 5	0.5
test 2	Selenium in ppm	1 - 2	0.3
test 3	Silicon in ppm	25 - 45	15
test 4	Carbon in %	5 - 12	.5

Interpreting your CSI soil test:
1. The top row provides identifying information and also identifies your soil CEC CEC: 3.5 = sandy soil; 7 = light soil; 14 = medium soil, 20+ = heavy, muck or organic soil
2. The second row provides your soil CEC results. Norms vary based on CEC reading - CEC means Cation Exchange Capacity, how "big" your nutrient - holding bucket is OR how large is the nutrient holding capacity of your soil
3. The bottom row gives LaMotte Soluble Readings: how available are the CEC minerals to the growing plant or crop
4. CEC: Do you need to add minerals? LaMotte: Do you need to bioactivate them? LaMotte - Broadleaf pressures reduce with P:K of 4:1, 4:2 for alfalfa LaMotte - Grass pressures reduce with Ca:Mg of 7:1 ratio

Comments
CEC Note: All values reported in lbs/A unless otherwise noted. Divide lbs by 2 to get ppm/A Value given is also approximately equivalent to ppm/hector Multiply ppm by 2 to get lbs/A CEC: Soils over 9 want calcium at 68% & Magnesium at 12% = 80% CEC: Sandy soils want more magnesium = calcium at 60% & magnesium at 20% = 80% CEC: Iron needs to be higher than Manganese for plants to take up iron LaMotte: Indication of how well your soil microbes are making minerals available to the root *Except for ERGS, values are given in lbs/A *Higher ERGS levels can be managed with water control including drip irrigation

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