

Interpreting Soil Reports

pH – Optimum range for most crops is 6.0 to 7.5, where most nutrients have highest availability

Buffer pH – the ‘reserve’ acidity. Lime recs are based on BpH

P – building and maintaining near 20 ppm is optimal

K- building and maintaining near 120 ppm is optimal

Mg – maintain at >100 ppm or 2x potassium

Ca – usually adequate when pH is in range

SGS **AGRI-FOOD LABORATORIES** AgTest Farm Soil Report **AGtest.com**

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Zn & Mn Index – a calculated value that considers pH, as these 2 nutrients are less available as pH rises. Less than 15 is generally too low

Cu, Fe, B – often adequate for most rotational crops. Beware toxicity

K:Mg - <0.5 is optimum, >1 inhibits Mg uptake

Sample ID	Lab #	pH	BpH	Total Salts (mmhos/cm)	Organic Matter (%)	Nitrogen NO3-N (ppm)	Phosphorus - P (ppm) Sodium Bicarb.	Potassium K (ppm)	Magnesium Mg (ppm)	Calcium Ca (ppm)
1	2465111	6.7			3.1		10 MR	124 LR	393 LR	2024
2	2465112	6.3	6.7		3.2		14 MR	78 MR	246 MR	1575
3	2465113	6.2	6.7		3.0		36 RR	195 RR	106 HR	674

Sample ID	Zinc Zn (ppm)	Zn Index	Manganese Mn (ppm)	Mn Index	Copper Cu (ppm)	Iron Fe (ppm)	Boron B (ppm)	Texture	Cation Exchange MEG/100g	K%	Base Saturation Mg%	Ca%	H%
1	0.7 D	15.9	27.8 H	19.7	0.8 H	112.9 E	0.37 L	M	14.9	2.1	22.0	67.9	8.0
2	0.6 D	18.5	11.4 MH	20.3	1.1 H	55.1 H	0.35 L	M	11.3	1.8	18.1	69.5	10.6
3	1.3 LM	22.5	13.6 H	22.5	0.7 H	47.2 H	0.35 L	C	7.0	7.2	12.7	62.8	17.3

Sample ID	Sodium Na (ppm)	Sulphate SO4 (ppm)	Chloride Cl (ppm)	Aluminum Al (ppm)	K/Mg Ratio	Exchangeable Acidity
1					0.3	
2					0.3	
3					1.8	

Sample ID		Crop to be Grown	Yield Goal	N Rec	P2O5 Removal Rec	K2O Removal	Magnesium	Calcium	(lb/ac) Sulphur	Zinc	Manganese	Copper	Iron	Boron	Lime (t/ha)
1	soybeans		65 bu/ac		27	55	38	91							
	corn		150 bu/ac	155	45	61	38	42		6.0					
	wheat, winter		80 bu/ac	75	27	47	38	32		3.0					
2	corn, sweet		5 ton/ac	150	36	7	74	25		5.0	1.0				
	peas		1 ton/ac	14	27	5	74	15		5.0	1.0				
3	corn		150 bu/ac	150						1.0	1.0				
	wheat, winter		80 bu/ac	75						1.0	1.0				

Response Ratings
 HR = high
 MR = moderate
 LR = low
 RR = rare
 NR = no response

CEC – the ability of a soil to attract and hold cations. Sand is low, clay is high, OM influences higher

OMAFRA Recommendations are a ‘Sufficiency’ approach, suggesting the best annual crop-specific rate.

AFL Recommendations are designed to build and maintain soil test values. Shown in 2 portions, ‘Removal’ (yield x removal factor) and ‘Rec’ which is a build rate when added to removal rate.

OMAFRA Recs are Kg/Ha of actual nutrient. Divide by guaranteed analysis of a product to calculate kg of product to apply per hectare. Multiply by 0.89 to convert to lbs/acre.

AFL Recommendations are Lbs/Ac of actual nutrient. Divide by guaranteed analysis of a product to calculate pounds of product to apply per acre.

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