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GENERAL SOIL TEST INTERPRETATION GUIDE

ELEMENT	UNITS	TYPICAL RANGE IN SOILS*	EXESSIVE
Nitrate	ppm-N	2 - 75	>100
Nitrate	lbs-N/ac-ft	10 - 300	>400
Ammonium	ppm-N	1 - 20	>60
Ammonium	lbs-N/ac-ft	5 - 80	>250
Phosphorus-Olsen	ppm-P	2 - 60	>100
Phosphorus-Morgan	ppm-P	1 - 40	>60
Phosphorus-BrayP1	ppm-P	10 - 100	>150
Potassium	ppm-K	50 - 700	>900
Sulfur	ppm-S	5 - 50	>100
Boron	ppm-B	0.1 - 2.0	>3
Zinc	ppm-Zn	0.1 - 20	>40
Manganese	ppm-Mn	0.1 - 40	>60
Copper	ppm-Cu	0.1 - 10	>20
Iron	ppm-Fe	0.1 - 100	>250
Calcium	meq/100g	5 - 50	>200
Magnesium	meq/100g	2 - 30	>100
Sodium	meq/100g	0.1 - 10	>3
pH	s.u.	5 - 9	<5 or >8
Soluble Salts	m.mho/cm	0.1 - 10	>5
Organic Matter	%	0.1 - 12	--
Bulk Density	M lbs/ac-ft	3 - 4.5	--
	g/cc	1-1.5	--

* Element concentrations are based on a dry-weight soil test extractable measurement, not a total digest basis.

A FEW CONVENIENT CONVERSION FACTORS

MULTIPLY	BY	TO OBTAIN AVAILABLE
ppm K in soil	1.2	ppm K_2O in soil
ppm P is soil	2.3	ppm P_2O_5 in soil
ppm K_2O in soil	4.0*	lbs K_2O/Acre foot
ppm P_2O_5 in soil	4.0*	lbs P_2O_5/Acre foot
ppm S in soil	4.0*	lbs S/Acre foot
ppm S in soil	3.0*	ppm SO_4 in soil
ppm Zinc in soil	4.0*	lbs Zinc/Acre foot
ppm Boron in soil	4.0*	lbs Boron/Acre foot
meq/100g K	391	ppm K
meq/100g Na	230	ppm Na
meq/100g Ca	200	ppm Ca
meq/100g Mg	121	ppm Mg

*This conversion factor will vary depending on the bulk density of the soil. For 80% of the soils in the Columbia Basin a factor of 4.0 to convert from ppm to lbs/acre foot would be very close. A factor of 3.2 would be appropriate for many higher organic soils west of the Cascades