WESTERN LABORATORIES, INC.

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Lawn, Parks, Trees & Shrubs

Date: 1/8/2020 Client: 11-111

Gardner: Western Labs

Garden ID:

Part	SOIL REPORT Garden ID:									
PH-SMP	ELEMENT	YOURS	INTERP	INTERP Should Be		ELEMENT	YOURS	INTERP	Should Be	
Texture	pH-Water	7.1	Neutral Soil		oil	Potassium-ppm	890	Very High	350 +	
Soluble Salts 0.24 Normal < 1.5 Zinc-ppm 4.2 High 1.5 - 3.0	pH-SMP					Magnesium-ppm	462	High	300 +	
CEC Cation Exchange Capacity Capacit	Texture	Sandy Loam				Sodium-ppm	57	ок	< 150	
Sec Capacity 1-7 Moderate Manganese-ppm 7 Adequate 6 - 30 % Organic Matter 5.21 High Copper-ppm 1.7 Adequate 1.2 - 2.5 Nitrates-ppm 28 High 50 + Sulfate-ppm 28 Adequate 20 + Ammonium-ppm 5 + Boron-ppm 0.6 Low 0.8 - 1.2 Phosphorus-ppm 69 High 40 + Chloride-ppm < 80	Soluble Salts	0.24	Normal	<	< 1.5	Zinc-ppm	4.2	High	1.5 - 3.0	
% Organic Matter 5.21 High Copper-ppm 1.7 Adequate 1.2 - 2.5 Nitrates-ppm 28 High 50 + Sulfate-ppm 28 Adequate 20 + Ammonium-ppm 5 + Boron-ppm 0.6 Low 0.8 - 1.2 Phosphorus-ppm 69 High 40 + Chloride-ppm < 80	CEC Cation Exchange Capacity	14	Moderate			Iron-ppm	107	High	25+	
Nitrates-ppm 28	% Lime	0.0	G	ood		Manganese-ppm	7	Adequate	6 - 30	
Ammonium-ppm	% Organic Matter	5.21	Н	High		Copper-ppm	1.7	Adequate	1.2 - 2.5	
Phosphorus-ppm 69	Nitrates-ppm	28	High		50 +	Sulfate-ppm	28	Adequate	20 +	
Calcium-ppm 3866	Ammonium-ppm				5 +	Boron-ppm	0.6	Low	0.8 - 1.2	
% Base Saturation 234 Strongly Basic Calcium-% of CEC 65-80 142 Ratio Yours Ideal Watch Magnesium-% of CEC 10-20 28 Ca:P pH >7 56:1 100:1 Watch Ca Potassium-% of CEC 2-6 17 Ca:Mg 8:1 6-20:1 Sodium-% of CEC 2-6 17 Ca:P pH <7	Phosphorus-ppm	69	High		40 +	Chloride-ppm			< 80	
Ratio Yours Ideal Watch Magnesium-% of CEC 10-20 28	Calcium-ppm	3866	High	1,500 +		BASI	ES	IDEAL	YOURS	
Ca:P pH >7 56:1 100:1 Watch Ca Ca:Mg 8:1 6-20:1 Potassium-% of CEC 2-6 17 Ca:P pH < 7 :1 40:1 Sodium-% of CEC < 5 2 RECOMMENDATIONS IN POUNDS PER 1,000 SQUARE FEET GROUP LAWN DECIDUOUS EVERGREEN SHRUBS FLOWERS GROUND COVER TOLERANT Nitrogen* 4.9 2.6 3.5 2.6 3 2.1 2.1 Phosphorus 2.1 1.2 .7 .3 1.2 .3 1.6 Potassium 3 4 5 5 3 3 9 Gypsum 3 4 5 5 3 3 9 Gypsum 4 5 5 3 3 9 Magnesium 2 1.8 1.8 1.4 .7 1 .3 1 Plant Food Iron 4 5 1.1 1.5 1.1 <	% Base Saturation	234	Strong	Strongly Basic		Calcium-% of CEC		65-80	142	
Potassium-% of CEC 2-6 17	Ratio	Yours	Ideal	Watch		Magnesium-% of CEC		10-20	28	
Ca:Mg 8:1 6-20:1 Ca:P pH < 7 :1 40:1 Sodium-% of CEC < 5 2 RECOMMENDATIONS IN POUNDS PER 1,000 SQUARE FEET GROUP LAWN DECIDUOUS EVERGREEN SHRUBS FLOWERS GROUND COVER ACID TOLERANT Nitrogen* 4.9 2.6 3.5 2.6 3 2.1 2.1 Phosphorus 2.1 1.2 .7 .3 1.2 .3 1.6 Potassium 3 4 5 5 3 3 9 Gypsum 3 4 5 5 3 3 9 Gypsum 4 5 5 3 3 9 Elemental Sulfur 3 4 5 5 3 3 9 Gypsum 4 5 5 3 3 9 Zinc 1.8 1.8 1.4 .7 1 .3 1 <td< td=""><td>Ca:P pH >7</td><td>56:1</td><td>100:1</td><td colspan="2">Watch Ca</td><td colspan="2">Potassium-% of CFC</td><td>2.6</td><td>17</td></td<>	Ca:P pH >7	56:1	100:1	Watch Ca		Potassium-% of CFC		2.6	17	
P:Zn	Ca:Mg	8:1	6-20:1							
RECOMMENDATIONS IN POUNDS PER 1,000 SQUARE FEET GROUP LAWN DECIDUOUS EVERGREEN SHRUBS FLOWERS GROUND COVER ACID TOLERANT Nitrogen* 4.9 2.6 3.5 2.6 3 2.1 2.1 Phosphorus 2.1 1.2 .7 .3 1.2 .3 1.6 Potassium .3	Ca:P pH <7	:1	40:1			Sodium-% of CEC		< 5	2	
Copper C	P:Zn	16:1	15:1	Watch Zn		Hydrogen-% of CEC		< 15		
Nitrogen* 4.9 2.6 3.5 2.6 3 2.1 2.1	RECOMMENDATIONS IN POUNDS PER 1,000 SQUARE FEET									
Phosphorus 2.1 1.2 .7 .3 1.2 .3 1.6 Potassium .3 .3 .3 .3 .3 .9 Sulfate Sulfur .3 .4 .5 .5 .3 .3 .9 Gypsum	GROUP	LAWN	DECIDUO	ous	EVERGRE	EN SHRUBS	FLOWERS			
Potassium Sulfate Sulfur .3	Nitrogen*	4.9	2.6		3.5	2.6	3	2.1	2.1	
Sulfate Sulfur .3 4 5 5 3 3 9 Gypsum Lime Becommendation Becommendation In Ounces PER 1,000 SQUARE FEET Magnesium Magnesium 1.8 1.4 .7 1 .3 1 Plant Food Iron Manganese 1.1 1.5 1.1 .4 .4 Copper .1 .5 .1 .1 .1	Phosphorus	2.1	1.2		.7	.3	1.2	.3	1.6	
Elemental Sulfur 3	Potassium									
Gypsum Lime Copper Accommendation Copper Accommendation Accommend										
Lime RECOMMENDATIONS IN OUNCES PER 1,000 SQUARE FEET Magnesium 1.8 1.8 1.4 .7 1 .3 1 Plant Food Iron Manganese 1.1 1.5 1.1 .4 .1 Copper .1 .5 .1 .1 .1	Elemental Sulfur	3	4		5	5	3	3	9	
RECOMMENDATIONS IN OUNCES PER 1,000 SQUARE FEET Magnesium Image: Comparison of the control of the	Gypsum									
Magnesium Zinc 1.8 1.8 1.4 .7 1 .3 1 Plant Food Iron Manganese 1.1 1.5 1.1 .4 .4 .1 Copper .1 .5 .1 .1 .1										
Zinc 1.8 1.8 1.4 .7 1 .3 1 Plant Food Iron Manganese 1.1 1.5 1.1 .4 .4 .1 Copper .1 .5 .1 .1 .1										
Plant Food Iron .4 Manganese 1.1 1.5 1.1 .4 Copper .1 .5 .1 .1	•	4.0	4.0		4 4					
Manganese 1.1 1.5 1.1 .4 Copper .1 .5 .1 .1		1.8	1.8	+	1.4	-//	7	.3	1	
Copper .1 .5 .1 .1		11	1 5	-+	1 1		1			
							.4		1	
			.3		<u></u> .1	.1	.1	.1		

Lab Number

If the water extracted pH is less than 6.7, add 10 pounds of Lime per 1000 square feet. If the pH is greater than 6.7 and the Ca is less that 2400 ppm, add 5 pounds Gypsum per 1000 square feet. It takes up to 7 years for Lime to completely dissolve. Don't expect rapid increase in pH. Remember: You're only treating the top 6 inches with Lime. Gypsum will go into the solution in the first year.

All recommendations are in pounds and ounces per square feet.

Example 1: Your garden is 35 ft wide by 55 feet long, or 1925 square feet. If you divide your square footage by 1,000 you'll put on 1.925 times the recommendation for your garden.

Example 2: Your garden is 80 ft wide by 125 feet long, or 10,000 square feet. If you divide your square footage by 1,000 you'll put on 10 time the recommendation for your garden.

If the water extracted pH is less than 6.7, add 10 pounds of Lime per 1,000 square feet. If the pH is greater than 6.7 and the Calcium is less than 2400 ppm, add 5 pounds of Gypsum. It takes up to 7 years for Lime to completely dissolve. Don't expect rapid increase in pH. Remember: You're only treated the top 6 inches with Lime. Gypsum will go into solution in the first year.

PHOSPHATE (P205)

Example 3: The lab recommends 4 pounds of Phosphate per 1000 square feet. You're going to use 11-52 Ammonium Phosphate. CALCULATION: $1 \times .52 = .52$ pounds of Phosphate per pound of 1152.4 pounds of recommendation / .52 = 7.69 pounds per 1000 square feet. If you take example 1 (1.925) x 7.69 = 14.80 pounds of Phosphate per garden. 11-52 also contains 11% Nitrogen. CALCULATION: $1 \times .11 = .11 \times 7.69$ pounds = 85 Nitrogen per 1000 square feet.

NITROGEN (N)

The lab suggests 3.5 pounds of Nitrogen. **Never apply more than 1 pound of Nitrogen when using Ammonium Sulfate**. Never apply 1.5 pounds Nitrogen when using other Nitrogen products. If you take example 3, by using 11-52 you're adding .85 pounds of Nitrogen per 1000 square feet already. If you added one pound of Uriah per thousand you'd be adding an additional .46 pounds N per 1000 square feet. If you add the two together you've added 1.31 pounds per 1000 square feet, which is okay.

POTASH (K20)

The lab recommends 6 pounds of Potash per 1000 square feet. The best source for pre-plant K is 0-0-50 Potassium Sulfate. You will need to apply 12 pounds 0-0-50 to get 5 pounds per 1000 square feet. Two pounds of Potassium Sulfate equals one pound of K20. You would apply 12 pounds every 1000 square feet to meet the 6 pound recommendation. During midseason, if you notice marginal burning, add 2 pounds of 0-0-60 Potassium Chloride per 1000 square feet and thoroughly water with overhead irrigation. This would equal 1.2 pounds of K20.

If your soil test contains lime, do not use Gypsum. Elemental Sulfur converts to sulfuric acid and reacts with the lime in your soil to form Gypsum. Adding Gypsum to soils lime will form more lime.

Lime + soil + water forms cementing of the soil which means water runs off the surface.

* Do not apply more than five pounds of fertilizer on established vegetation at one time. Always irrigate following fertilization on established crop. Over and under irrigation is a major cause of poor plant appearance.

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