

WESTERN LABORATORIES, INC.

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Lab Number

1

Date: 1/8/2020

Client: 11-111

Gardner: Western Labs

Garden ID:

Lawn, Parks, Trees & Shrubs

SOIL REPORT



ELEMENT	YOURS	INTERP	Should Be	ELEMENT	YOURS	INTERP	Should Be
pH-Water	7.1	Neutral Soil		Potassium-ppm	890	Very High	350 +
pH-SMP				Magnesium-ppm	462	High	300 +
Texture	Sandy Loam			Sodium-ppm	57	OK	< 150
Soluble Salts	0.24	Normal	< 1.5	Zinc-ppm	4.2	High	1.5 - 3.0
CEC Cation Exchange Capacity	14	Moderate		Iron-ppm	107	High	25+
% Lime	0.0	Good		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
Calcium-ppm	3866	High	1,500 +	BASES		IDEAL	YOURS
% 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		< 5	2
Ca:P pH <7	:1	40:1		Hydrogen-% of CEC		< 15	
P:Zn	16:1	15:1	Watch Zn				

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							
Sulfate Sulfur	.3						
Elemental Sulfur	3	4	5	5	3	3	9
Gypsum							
Lime							

RECOMMENDATIONS IN OUNCES PER 1,000 SQUARE FEET

Magnesium							
Zinc	1.8	1.8	1.4	.7	1	.3	1
Plant Food Iron							
Manganese	1.1	1.5	1.1		.4		
Copper	.1	.5	.1				.1
Boron	.3	.3	.1	.1	.1	.1	

"Always practice the laws of Agronomy." - John P. Taberna, Soil Scientist

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 than 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 times 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 $(1.925) \times 7.69 = 14.80$ 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 Uria 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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