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800-658-3858 • www.westernlaboratories.com

Lab Number
1

Date: 1/8/2020

Client: 11-111

Gardner: Western Labs

Garden ID:

GARDEN, BERRIES, AND FRUIT TREES SOIL REPORT



ELEMENT	YOURS	INTERP	Should Be	ELEMENT	YOURS	INTERP	Should Be
pH-Water	7.8	Moderately Basic		Potassium-ppm	190	Low	350 +
pH-SMP				Magnesium-ppm	422	High	300 +
Texture	Sandy Loam			Sodium-ppm	220	Too High	< 150
Soluble Salts	0.58	Normal		Zinc-ppm	11.1	Very High	1.5 - 3.0
CEC Cation Exchange Capacity	11			Iron-ppm	14	Adequate	25+
% Lime	4.2	Potential Sealing		Manganese-ppm	3	Low	6 - 30
% Organic Matter	3.9	Medium		Copper-ppm	1.7	Adequate	1.2 - 2.5
Nitrates-ppm	40	High	50 +	Sulfate-ppm	72	Adequate	20 +
Ammonium-ppm	6		5 +	Boron-ppm	1.3	High	0.8 - 1.2
Phosphorus-ppm	71	High	40 +	BASES		IDEAL	YOURS
Calcium-ppm	4638	Very High	1,500 +	Calcium-% of CEC		65-80	212
% Base Saturation	282			Magnesium-% of CEC		10-20	32
Ratio	Yours	Ideal	Watch	Potassium-% of CEC		2-6	4
Ca:P pH >7	65:1	100:1	Watch Ca	Sodium-% of CEC		< 5	9
Ca:Mg	11:1	6-20:1		Hydrogen-% of CEC		< 15	
Ca:P pH <7	:1	40:1					
P:Zn	6:1	15:1	Watch P				

RECOMMENDATIONS IN POUNDS PER 1,000 SQUARE FEET

GROUP	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8
Nitrogen*	1.9	4.6	2.8	2.3	3.2	2.3	2.1	2.8
Phosphorus	2.4	4.3	1.8	1.1	1.6	3	2.7	2
Potassium	4.2	6	2.5	2.5	2.5	4.8	2.5	6
Sulfur								
Elemental Sulfur	10	8	12	9	10	10	9	12
Gypsum								
Lime								
Magnesium								

RECOMMENDATIONS IN OUNCES PER 1,000 SQUARE FEET

Zinc								
Plant Food Iron	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Manganese	3.1	3.7	2.9	2.2	2.9	2.2	2.2	3.7
Copper	.4	.5	.1	.1	.1	.1	.1	.1
Boron	.3	.3	.3	.3	.3	.3	.3	.3

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

Western Laboratories Garden Categories			
GROUP 1	GROUP 2	GROUP 3	GROUP 4
Grapes (all)	Bell Peppers	Berry (all)	Bok Choy
Alfalfa	Celery	Cucumbers	Collards
Beans (all edible)	Egg Plant	Muskmelons	Greens
Clover	Potatoes	Small Pumpkins	Herbs (all)
Peas (all)	Sweet Corn	Fruit Trees (all)	Lettuce
Vetch	Tomatoes		Mustard
	Sweet Potatoes		Okra
	Lawn		Spinach
GROUP 5	GROUP 6	GROUP 7	GROUP 8
Chives	Beets	Broccoli	Giant Pumpkins
Garlic	Carrots	Brussels Sprouts	Cucumbers
Leek	Parsnips	Cabbage	Watermelon
Onions	Radishes	Caulifloweer	Cantaloupe
Shallots	Rutabaga	Currants	Squash, Summer & Winter
Asparagus	Turnips	Kale	
		Kohlrabi	

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 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.**