



Soil and Plant Laboratory, Inc.

www.soilandplantlaboratory.com

LANDSCAPE MAINTENANCE SAMPLE REPORT, ROSES

BACKGROUND

The two samples received were described as representing soil from rose garden plantings in need of maintenance recommendations.

ANALYSIS RESULTS

The reaction values are slightly acidic and suitable in both areas with lime content favorably low or absent. Organic content in the Big Garden is adequate. Organic content in the Side Garden is fair. Salinity, sodium and boron are safely low and the SAR values show soluble sodium adequately balanced by calcium and magnesium.

Nutritional data for Big Garden show low manganese and fair iron with all other major and minor nutrients available at sufficient levels. Nitrogen, manganese, iron, boron and sulfate are low in the Side Garden with all other major and minor elements sufficient.

DISCUSSION

Boron deficiency manifests itself in malformation of the leaf vein accompanied by chlorosis, necrosis and/or stunted new growth. This is least likely to be the cause of any problems but if you are experiencing chlorosis AND young growth appears stunted and malformed, you may try supplementing this element in the form of sodium borate (Laundry Borax) at 1/2 to 1 ounce per 1000 square feet.

While manganese is low, the need of this nutrient is small and variety dependent. Manganese deficiency symptoms usually resemble general chlorosis with dark green surrounding the main veins and midrib and may be accompanied by necrotic spotting or speckling. Manganese deficiency may be addressed by applying a manganese chelate per manufacturers label rate.

It is recommended that all other treatments be given the opportunity to take affect before applying manganese or boron as these micronutrients are necessary in such minute quantities that it is very easy to over apply and toxicity can occur at relatively low levels.

RECOMMENDATIONS

To improve the nutritional balance, evenly broadcast the following materials at their respective rates. Iron sulfate should be applied with caution, as it will stain moist concrete. The iron sulfate application and the other materials may be applied at the same time. All applications should be



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immediately followed with a thorough irrigation. Recommendations for organic materials are also provided for your reference.

Big Garden, Amount/ 1000 Square Feet:

Inorganic/Organic: 1-1/2 pounds Iron Sulfate (31% Fe)

(Iron levels in this area are fair and this application may be delayed until the first flush of new growth in spring. At that time, nitrogen may be supplemented in the same manner as in the Side Garden)

Side Garden, Amount/ 1000 Square Feet:

Inorganic: 3 pounds Iron Sulfate
8 pounds Sulfur Coated Urea (32-0-0)

OR

Organic: 3 pounds Iron Sulfate
20 pounds Blood Meal

Apply organic fertilizers uniformly as concentrated areas may experience burning.

The iron sulfate will slightly increase the acidity of the soil and as a result will increase the availability of the existing manganese content.

To improve the organic content in the Side Garden, a 1-inch layer of organic product may be evenly spread and worked into the soil where possible. Any organic amendment will suffice for this purpose but due to the inherent fertility of some composted materials, the additional nutritional contribution may be more than desired at this time. For this reason an inert, nitrogen-stabilized, non-composted amendment such as firbark is recommended to improve the soil condition without upsetting the current nutritional balance. Firbark is also a good source of manganese.

MAINTENANCE

Slow release organic fertilizers and Sulfur Coated Urea will supply adequate nitrogen for about 2 to 3 months and may be reapplied accordingly at the above given rates. Additional organic sources of nitrogen include alfalfa, soybean, feather and fish meal and bat guano.



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SOIL FERTILITY AND
MICRONUTRIENT ANALYSIS
A01 (partial) or A17 (full)

Sam ple #	Half Sat/ TEC	pH Qual Lime	ECe	-----Parts Per Million Parts Dry Soil-----											----Sat Ext----			Sample Description	Log Number
				NO3 N	NH4 N	PO4 P	K	Ca	Mg	Cu	Zn	Mn	Fe	B ppm	SO4 meq/l	Na (SAR)			
1	29	6.7	1.5	49	6	95	750	2830	488	8.9	22	13	77	0.26	3.6	2.0	Big Garden		
	194	Low		0.9		2.7	2.3	0.8	1.1	3.3	2.1	0.6	0.8	0.9	1.2	(0.9)	Chem Org	=	6.9 % dry wt
2	22	6.8	0.6	6	5	104	310	2240	244	4.7	47	10	47	0.08	1.4	0.9	Side Garden		
	138	None		0.2		3.9	1.4	0.9	0.8	2.4	6.4	0.6	0.6	0.3	0.5	(0.6)	Chem Org	=	2.9 % dry wt

Sufficiency factor (1.0=sufficient for average crop) below each nutrient value. N factor based on 200 ppm constant feed. The value below sodium (Na) result is the SAR = Sodium adsorption ratio. Half Saturation %=approx field moisture capacity. Sat.ext. method for salinity (ECe as dS/m), Boron (B), Sulfate (SO4), and Sodium (Na). Major elements, Nitrogen(N),Potassium(K), Calcium(Ca) and Magnesium(Mg) by sodium chloride extraction. Phosphorus(P) by sodium bicarbonate extraction. Copper(Cu), Zinc(Zn), Manganese(Mn) & Iron(Fe) by DTPA extraction. TEC(listed below Half Sat.) = Est.Total Exchangeable Cations (meq/kg).