

Your Company's Name  
& Contact Information

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Sample Number PSA-7965

Collection Date 2010-06-16

Process Date 2010-06-30

Report Date 2010-06-30

Date of Last Liming \_\_\_\_\_

Soil Type Sandy Loam

Tree(s) Species Am. Holly (Ilex opaca) Watering Method None

Canopy Area 150 sq.ft. DBH 4 inches Tree(s) Life Stage Established (2 - 20 yrs.)

Sample Notes: \_\_\_\_\_

## LABORATORY ANALYSIS and RECOMMENDATIONS

[Results reported as Parts Per Million (ppm)]

TEST	RE-SULTS	OPTIMUM RANGE	RATING	RECOMMENDATIONS
1. pH Adjustment	5.6	5.3 - 6.7	Low Normal	Apply 1 lbs./100 sq.ft. of Agricultural Lime [Pelletized form recommended]
2. Calcium (Ca)	102	275 - 437	Very Low	Apply 15 lbs./ 100 sq.ft. of gypsum in (3) 5 lb. applications 4-6 months apart
3. Core Depth	6 "	12+ "	Very Low	Apply 0.5 oz/100 sq.ft. in 2-3 gals water of Bio-Aer or similar Organic Soil Conditioner at 6-8 week intervals throughout the growing season until Optimum Range reached.
4. Humus Content	5%	10+%	Very Low	Apply 2.55 lbs/100 sq.ft. of Bio-Soil Boost or similar organic material
5. Thatch Layer	N/A	0 - 0.125"	N?A	No recommendation made at this time
6. Soluble Salts	5	25 - 60	Extremely Low	ASAP apply Bio-Tree & Shrub diluted 1:40 at 5 gals. diluted mix /1" DBH every year for three years. Re-test in 4 yrs. May substitute similar product if available.
7. Nitrates (NO <sub>3</sub> )	4	10 - 20	Very Low	Follow the recommendation for Item #6
8. Ammonium (NH <sub>4</sub> )	4	5 - 15	Low	Follow the recommendation for Item #6
9. Phosphate (HPO <sub>4</sub> )	1	2 - 5	Very Low	Follow items #6 - #8 or apply 4 lbs./100 sq.ft. of rock phosphate or 0.4 lb./100 sq.ft. of superphosphate
10. Potassium (K)	4	5 - 25	Low	Follow items # 6 - #8 or apply 3 lbs./100 sq.ft of Greensand or 0.3 lb./100 sq.ft. of potassium sulfate
11. Magnesium (Mg)	17	10 - 30	Normal	No Action Required
12. Iron (Fe)	0.1	0.5 - 5	Very Low	Follow items # 6 - #8 or apply 2.0 ozs. of Bio-Green in 5 gals. of water/ inch of DBH or similar organic-based micro nutrient product if available
13. Manganese (Mn)	0.2	0.5 - 5	Very Low	Follow items # 6 - #8 or apply 2.0 ozs. of Bio-Green in 5 gals. of water/ inch of DBH or similar organic-based micro nutrient product if available
14. Boron (B)	0.01	0.06 - .5	Extremely Low	Follow items # 6 - #8 or apply 2.5 ozs. of Bio-Green in 5 gals. of water/ inch of DBH or similar organic-based micro nutrient product if available
15. Copper (Cu)	0.08	0.06 - .5	Normal	No action required
16. Zinc (Zn)	0.05	0.3 - 3.0	Extremely Low	Follow items # 6 - #8 or apply 2.5 ozs. of Bio-Green in 5 gals. of water/ inch of DBH or similar organic-based micro nutrient product if available
17. Sulfates (SO <sub>4</sub> )	40	40 - 150	Normal	No action required
18. Chlorides (Cl)	10	0 - 30	Normal	Avoid fertilizers containing chlorides

### Special Instructions & Recommendations

While the pH is in the Low Normal range for hollies, it is also low enough to affect the availability of several key nutrients including nitrogen, phosphorus, calcium and magnesium. Recommend an immediate foliar application followed by conventional deep root feeding after Thanksgiving. Making the pH and calcium adjustments will also help the overall health of the soil and holly.