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Fort Wayne, IN 46808
260.483.4759
algreatlakes.com

Soil Test Report

Reported To	Sample Information	
JIM CATRON 50 W 250 S LEBANON, IN 46052	Report Number	F17108-0586
	Report Date	4/20/2017
	Lab Number	13224
	Sample ID	0001
	To Be Grown	VEGETABLE GARDEN

Analysis Results

Analysis	Result	Soil Test Rating (Very Low / Low / Medium / High / Very High)
Organic Matter, %	4.2	
Phosphorus, ppm P (Bray-1 Equiv.)	28	
Potassium, ppm K	96	
Magnesium, ppm Mg	275	
Calcium, ppm Ca	1750	
Sodium, ppm Na	14	
Cation Exchange Capacity, meq/100g	12.5	
pH	6.5	
Buffer pH	6.9	
Soluble Salts, mmho/cm	0.1	
Sulfur, ppm S	6	
Zinc, ppm Zn	5.2	
Iron, ppm Fe	92	
Manganese, ppm Mn	27	
Copper, ppm Cu	2.2	
Boron, ppm B	0.5	

Annual Nutrient Requirement

Pounds per 100 Square Feet						Pounds per 1,000 Square Feet					
Lime	Nitrogen (N)	Phosphorus (P2O5)	Potassium (K2O)	Magnesium (Mg)	Sulfur (S)	Lime	Nitrogen (N)	Phosphorus (P2O5)	Potassium (K2O)	Magnesium (Mg)	Sulfur (S)
0	0.4	0.4	0.4	0.0	0.1	0	4	4	4	0	1

Suggested Fertilizer Application

	NPK Fertilizer Grade	Description	Annual Application Rate		
			lbs per 100 sq. ft.		lbs per 1,000 sq. ft.
Product	12-12-12	Complete Fertilizer	3.3	OR	33.0
			0.0	OR	0.0

Comments

Use the fertilizer listed above or another material of similar NPK analysis. Apply and incorporate 1/2 the recommended amount prior to planting or seeding. Spread the remaining 1/2 after plants are established and rapidly growing. Application of nitrogen in excess of the suggested amount could result in excessive growth of vegetation and poor yield of fruit for some garden plants.

See Fact Sheet #10, Interpretive Guide, located on our website, for an explanation of soil test results.

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Soil Test Report

Reported To	Sample Information	
JIM CATRON 50 W 250 S LEBANON, IN 46052	Report Number	F17108-0586
	Report Date	4/20/2017
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	To Be Grown	VEGETABLE GARDEN

Your plants will benefit from the addition of sulfur to the garden soil. Apply 1 pound of elemental sulfur per 1000 square feet, and incorporate into the soil. Water well after application.

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Soil Test Report

Reported To	Sample Information	
JIM CATRON 50 W 250 S LEBANON, IN 46052	Report Number	F17108-0586
	Report Date	4/20/2017
	Lab Number	13225
	Sample ID	0002
	To Be Grown	VEGETABLE GARDEN

Analysis Results

Analysis	Result	Soil Test Rating (Very Low / Low / Medium / High / Very High)
Organic Matter, %	4.0	
Phosphorus, ppm P (Bray-1 Equiv.)	89	
Potassium, ppm K	134	
Magnesium, ppm Mg	330	
Calcium, ppm Ca	2050	
Sodium, ppm Na	21	
Cation Exchange Capacity, meq/100g	14.6	
pH	6.5	
Buffer pH	6.9	
Soluble Salts, mmho/cm	0.6	
Sulfur, ppm S	127	
Zinc, ppm Zn	9.3	
Iron, ppm Fe	104	
Manganese, ppm Mn	30	
Copper, ppm Cu	2.2	
Boron, ppm B	0.7	

Annual Nutrient Requirement

Pounds per 100 Square Feet						Pounds per 1,000 Square Feet					
Lime	Nitrogen (N)	Phosphorus (P2O5)	Potassium (K2O)	Magnesium (Mg)	Sulfur (S)	Lime	Nitrogen (N)	Phosphorus (P2O5)	Potassium (K2O)	Magnesium (Mg)	Sulfur (S)
0	0.4	0.0	0.3	0.0	0.0	0	4	0	3	0	0

Suggested Fertilizer Application

	NPK Fertilizer Grade	Description	Annual Application Rate		
			lbs per 100 sq. ft.		lbs per 1,000 sq. ft.
Product 1	20-0-0	Ammonium Sulfate	2.0	OR	20.0
Product 2	0-0-60	Potash	0.5	OR	5.0

Comments

Use the fertilizer listed above or another material of similar NPK analysis. Apply and incorporate 1/2 the recommended amount prior to planting or seeding. Spread the remaining 1/2 after plants are established and rapidly growing. Application of nitrogen in excess of the suggested amount could result in excessive growth of vegetation and poor yield of fruit for some garden plants.

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Soil Test Report

Reported To	Sample Information	
JIM CATRON 50 W 250 S LEBANON, IN 46052	Report Number	F17108-0586
	Report Date	4/20/2017
	Lab Number	13226
	Sample ID	0003
	To Be Grown	VEGETABLE GARDEN

Analysis Results

Analysis	Result	Soil Test Rating (Very Low / Low / Medium / High / Very High)
Organic Matter, %	3.8	
Phosphorus, ppm P (Bray-1 Equiv.)	30	
Potassium, ppm K	249	
Magnesium, ppm Mg	285	
Calcium, ppm Ca	1800	
Sodium, ppm Na	14	
Cation Exchange Capacity, meq/100g	12.4	
pH	6.8	
Soluble Salts, mmho/cm	0.1	
Sulfur, ppm S	9	
Zinc, ppm Zn	4.4	
Iron, ppm Fe	78	
Manganese, ppm Mn	32	
Copper, ppm Cu	2.3	
Boron, ppm B	0.7	

Annual Nutrient Requirement

Pounds per 100 Square Feet						Pounds per 1,000 Square Feet					
Lime	Nitrogen (N)	Phosphorus (P2O5)	Potassium (K2O)	Magnesium (Mg)	Sulfur (S)	Lime	Nitrogen (N)	Phosphorus (P2O5)	Potassium (K2O)	Magnesium (Mg)	Sulfur (S)
0	0.4	0.4	0.0	0.0	0.1	0	4	4	0	0	1

Suggested Fertilizer Application

	NPK Fertilizer Grade	Description	Annual Application Rate		
			lbs per 100 sq. ft.		lbs per 1,000 sq. ft.
Product 1	20-0-0	Ammonium Sulfate	1.0	OR	10.0
Product 2	10-18-10	Lawn Starter	2.0	OR	20.0

Comments

Use the fertilizer listed above or another material of similar NPK analysis. Apply and incorporate 1/2 the recommended amount prior to planting or seeding. Spread the remaining 1/2 after plants are established and rapidly growing. Application of nitrogen in excess of the suggested amount could result in excessive growth of vegetation and poor yield of fruit for some garden plants.

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Soil Test Report

Reported To	Sample Information	
JIM CATRON 50 W 250 S LEBANON, IN 46052	Report Number	F17108-0586
	Report Date	4/20/2017
	Lab Number	13227
	Sample ID	0004
	To Be Grown	VEGETABLE GARDEN

Analysis Results

Analysis	Result	Soil Test Rating (Very Low / Low / Medium / High / Very High)
Organic Matter, %	4.2	
Phosphorus, ppm P (Bray-1 Equiv.)	31	
Potassium, ppm K	146	
Magnesium, ppm Mg	365	
Calcium, ppm Ca	1900	
Sodium, ppm Na	13	
Cation Exchange Capacity, meq/100g	13.0	
pH	7.1	
Soluble Salts, mmho/cm	0.1	
Sulfur, ppm S	8	
Zinc, ppm Zn	6.9	
Iron, ppm Fe	75	
Manganese, ppm Mn	30	
Copper, ppm Cu	2.4	
Boron, ppm B	0.7	

Annual Nutrient Requirement

Pounds per 100 Square Feet						Pounds per 1,000 Square Feet					
Lime	Nitrogen (N)	Phosphorus (P2O5)	Potassium (K2O)	Magnesium (Mg)	Sulfur (S)	Lime	Nitrogen (N)	Phosphorus (P2O5)	Potassium (K2O)	Magnesium (Mg)	Sulfur (S)
0	0.4	0.4	0.2	0.0	0.1	0	4	4	2	0	1

Suggested Fertilizer Application

	NPK Fertilizer Grade	Description	Annual Application Rate		
			lbs per 100 sq. ft.		lbs per 1,000 sq. ft.
Product 1	20-0-0	Ammonium Sulfate	1.0	OR	10.0
Product 2	10-18-10	Lawn Starter	2.0	OR	20.0

Comments

Use the fertilizer listed above or another material of similar NPK analysis. Apply and incorporate 1/2 the recommended amount prior to planting or seeding. Spread the remaining 1/2 after plants are established and rapidly growing. Application of nitrogen in excess of the suggested amount could result in excessive growth of vegetation and poor yield of fruit for some garden plants.

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Soil Test Report

Reported To	Sample Information	
JIM CATRON 50 W 250 S LEBANON, IN 46052	Report Number	F17108-0586
	Report Date	4/20/2017
	Lab Number	13230
	Sample ID	0005
	To Be Grown	VEGETABLE GARDEN

Analysis Results

Analysis	Result	Soil Test Rating (Very Low / Low / Medium / High / Very High)
Organic Matter, %	4.2	
Phosphorus, ppm P (Bray-1 Equiv.)	40	
Potassium, ppm K	303	
Magnesium, ppm Mg	315	
Calcium, ppm Ca	1650	
Sodium, ppm Na	14	
Cation Exchange Capacity, meq/100g	11.9	
pH	6.9	
Soluble Salts, mmho/cm	0.1	
Sulfur, ppm S	8	
Zinc, ppm Zn	5.0	
Iron, ppm Fe	109	
Manganese, ppm Mn	34	
Copper, ppm Cu	2.6	
Boron, ppm B	0.6	

Annual Nutrient Requirement

Pounds per 100 Square Feet						Pounds per 1,000 Square Feet					
Lime	Nitrogen (N)	Phosphorus (P2O5)	Potassium (K2O)	Magnesium (Mg)	Sulfur (S)	Lime	Nitrogen (N)	Phosphorus (P2O5)	Potassium (K2O)	Magnesium (Mg)	Sulfur (S)
0	0.4	0.3	0.0	0.0	0.1	0	4	3	0	0	1

Suggested Fertilizer Application

	NPK Fertilizer Grade	Description	Annual Application Rate		
			lbs per 100 sq. ft.		lbs per 1,000 sq. ft.
Product 1	20-0-0	Ammonium Sulfate	1.2	OR	12.0
Product 2	10-18-10	Lawn Starter	1.6	OR	16.0

Comments

Use the fertilizer listed above or another material of similar NPK analysis. Apply and incorporate 1/2 the recommended amount prior to planting or seeding. Spread the remaining 1/2 after plants are established and rapidly growing. Application of nitrogen in excess of the suggested amount could result in excessive growth of vegetation and poor yield of fruit for some garden plants.

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INTERPRETIVE GUIDE FOR LAWN AND GARDEN SAMPLES

FACT SHEET

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Fact Sheet No. 10
Revised 05/2016

The Lawn & Garden Soil Test Report lists the results of analyzing a soil sample for it's general fertility status. A graphic display shows the rating for each of the results related to optimum plant growth. Along with this are general fertilizer application rates suggested to either improve the fertility of the soil or maintain it. Finally, some comments are made specific to your planting requirements as listed on the submittal form. This Fact Sheet contains additional information about each of the sections in the report.

Analysis Results

Organic Matter measures the amount of plant and animal residues in the soil. Usually the darker the color of the soil the more organic matter is present. Organic matter is beneficial because it helps soil tilth and also adds plant nutrients as it breaks down. Organic matter levels in the soil may be increased by adding amendments such as leaf litter, grass clippings, manure, peat or muck. Where practical, strive for a level of at least 3 to 5 percent.

Phosphorus, Potassium, Calcium and Magnesium are essential nutrients for plants. Generally, when these nutrient tests are rated very low, low or medium, sufficient fertilizer or lime must be added to build up the soil. When ratings are high or very high, either no fertilizer is needed or just enough to maintain the current nutrient level is necessary. The source of phosphorus and potassium is usually commercial fertilizer or manure. Lime is most often the source of calcium and magnesium.

Cation Exchange Capacity (CEC) measures the capacity of the soil to hold nutrients. The higher the CEC reading the greater the capacity. Muck or peat soils may have CEC's far in excess of 25; heavy clay soils have CEC's from 15 to 25; loamy soils from 5 to 15; and sandy soils below 5. Although high CEC soils can hold more nutrients, they are not necessarily more productive. Much depends on good management. Soil CEC's may be lowered by adding sands or gravels and increased by adding clay, muck or peat.

Soil pH determines the level of active soil acidity or alkalinity. A pH of 7.0 is neutral. Values lower than 7.0 are acid (sour). Higher values are alkaline (sweet). Soils commonly range in pH from 5.0 to 8.0. Most plants grow best when the soil pH is between 6.0 and 7.0. When the soil pH is greater than 7.0, phosphorus and some trace minerals may be less available to plants. There are some acid loving plants such as blueberries, azaleas and rhododendrons which prefer more acid soils (less than 6.0). When the soil pH is too low (acidic), lime should be applied. When the soil pH is too high (alkaline), sulfur may be applied to help lower the pH.

Buffer pH is used to determine the amount of lime to apply on acid soils. A value is not given when the soil pH is greater than 6.8, since no lime is needed. The buffer pH starts at 7.0 and goes downward as more lime is necessary.