K-STATE Research and Extension

KSU Soil Testing Laboratory
2308 Throckmorton Plant Sciences Center
1712 Claflin Road
Manhattan, KS 66506-5503

Tel: 785-532-7897 Fax: 785-532-7412
www.agronomy.ksu.edu/soiltesting

Knowledge for Life

Soil Test Report

Billing Account #: 116

Sample Information:
Sample ID: 17163 - Sample one East half

Prepared For:
Rebecca McMahon
Sedgwick County Extension
7001 W. 21st Street N
Wichita, KS 67205

316-660-0100
rmcmahon@ksu.edu; dbindrum@ksu.edu; jskerr@ksu.edu

Send Copy To:
Aaron Rivers
5920 East Mont Vernon
Wichita, KS 67218

aaronhrivers@gmail.com

Order Number: 32118
Lab Number: 008794

Received: 3/30/2021
Reported: 4/1/2021
County: Sedgwick
(where sample was taken)

Results

Analysis	*Value Found*		*Analysis*	*Value Found*	
Soil pH (1:1, soil:water)	7.3		Buffer pH (Sikora)	7.2	
Organic Matter (LOI), %	3.8	%	Nitrate - N surface or 1st sample	1.7	ppm
Phosphorus (P) Mehlich-3	37	ppm	Potassium (K)	494	ppm
Lead (Pb) Nitric Digest	18.1	ppm	Arsenic (As)	5.6	ppm
Cadmium (Cd)	0.7	ppm	Chromium (Cr) Nitric Digest	14	ppm

Vegetable Garden

Nutrient Graph

Nutrient		Very Low	Low	Medium	Optimum	High	Very High
pH	7.3	4.0	5.6	6.0	7.0	7.5	
P	37	11	31	46	76	100	
K	494	75	141	200	221	300	

Recommendations:

pH: The pH is high for your plants. Do not add wood ashes as this will further raise the pH. Mix 1½ pounds of sulfur per 100 square feet into the soil in the fall or before planting in the spring to lower the pH. Pelletized sulfur is easier to work with than the dust though either will work.

Fertilizer: The level of phosphorus in your soil is medium but has very high levels of potassium. Some of the fertilizers listed may be lawn fertilizers but will work well for our purposes as long as they don't contain weed preventers or weed killers.

Use one of the following fertilizers at the recommended rate.

8-10-8 at 1 pound (2 cups) per 100 square feet
9-13-7 at 1 pound (2 cups) per 100 square feet
12-22-6 at 3/4 pound (1.5 cups) per 100 square feet
20-27-5 at 1/2 pound (1 cup) per 100 square feet.

If you cannot find one of the above fertilizers, don't worry. Any fertilizer with the second number higher than the other two would be a good choice. Just follow the direction on the bag for how much to use. The fertilizer should be mixed 6 inches into the soil before planting. A rototiller works well for mixing but hand mixing with a garden fork is also possible.

Vegetables may need additional fertilizer during the growing season to be productive. See the reference Top or Side-Dressing Nitrogen Fertilizer below for more info on sidedressing.

Organic Matter: The organic matter level is medium. You should incorporate 3" of compost or other organic matter to improve the soil.

Arsenic Interpretation:
Arsenic values commonly ranges from 1-50 ppm in the U.S., while soil concentrations average 5 ppm. A concentration of 21 ppm is considered to be hazardous in the U.S.

These values should be considered a screening for arsenic and not a total concentration. The arsenic level in your sample is 5.6 ppm. This is within the acceptable range.

Lead Interpretation:
Lead values commonly ranges from 2-200 ppm in the U.S., while soil concentrations average 10 ppm. A concentration of 150 ppm is considered to be a hazardous level in the U.S. Note: From analyzing soil with a known amount of total lead we usually recover 58% of the total lead. To estimate total lead in your soil multiply by 1.72.

These values should be considered a screening for lead and not a total concentration. The lead level in your sample is 31 ppm. This is within the acceptable range.

Cadmium Interpretation:
Cadmium values commonly ranges from .01-.7 ppm in the U.S., while soil concentrations average .06 ppm. A concentration of 20 ppm is considered to be hazardous in the U.S.

These values should be considered a screening for Cadmium and not a total concentration. The cadmium level in your sample is 0.7 ppm which is within the acceptable range.

Chromium Interpretation:
Chromium values commonly ranges from 1-1000 ppm in the U.S., while soil concentrations average 100 ppm. A concentration of 1500 ppm is considered to be hazardous in the U.S.

These values should be considered a screening for chromium and not a total concentration. The chromium level in your sample is 14 ppm which is within the acceptable range.

References (Crop Related):

Top or Side-Dressing Nitrogen Fertilizer http://www.ksre.k-state.edu/lawn-garden/fruit-vegetable/Sidedressing%20from%20Gregg%20Eyestone.pdf

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