

Interpreting Your Soil Test Report—for Farmers

Targeted to farmers or producers of crops grown over a large area. Units in pounds per acre.

Step 1: Do You Need Lime?

The most important information the soil test provides is based on the pH of the soil. If your pH is too low for the crop you are growing, we will make a lime recommendation. Lime application should come before any fertilizer is added (preferably about 2 months) to allow the liming material to raise the pH to an optimal level for your crop. If your sample does not have a lime recommendation, move on to the next step.

Step 2: Calculate the Amount of Fertilizer Required

The nitrogen recommendation below for the “front” sample calls for 120 pounds per acre. Suppose you want to use urea (46 percent nitrogen). First, convert the percentage of the nitrogen source (urea) to a decimal (46 percent = 0.46). Now divide into the recommended amount listed on the report: $120 \div 0.46 = 261$ pounds of urea per acre.

The same approach for calculating nitrogen can be used for phosphorous and potassium. If you are using triple superphosphate (TSP) at 46 percent P_2O_5 , convert

to a decimal (46 percent = 0.46) and divide into the recommended amount listed for the “front” sample below: $60 \div 0.46 = 130$ pounds of TSP per acre. If you are using muriate of potash (60 percent K_2O) to provide potassium, first convert the percentage to a decimal (60 percent = 0.6). Next, divide into the recommended “Side” sample amount below: $140 \div 0.6 = 233$ pounds of potash per acre.

Additional Information

The soil test report contains additional details about your sample. Units for elements tested are in pounds per acre (ppa). Of particular interest are phosphorous and potassium. Very high (VH) or high (H) indicates additional fertilizer will probably not result in additional plant growth or yield; medium (M) indicates a plant response may or may not occur; low (L) or very low (VL) indicates additional fertilizer will likely result in increased plant growth or yield.

What about nitrogen measurements? Plants require specific forms of nitrogen that are tricky to measure in the lab. Additionally, nitrogen is so mobile in the soil, measurement of current values would not be very helpful for predicting a nitrogen recommendation. Therefore, MSU Extension recommendations are based on research.



County Yazoo
Name Joe Sample
Description Sample Farm

Date In Lab: 4/23/2026
Lab Ref#: 5652-5653
Crop: Cotton-1500#
Target pH: 6.3

Reported in Pounds Per Acre

Sample #	Sample ID	P	K	Ca	Mg	Na	Zn	Mn	S	%OM	pH	CEC	%acid	Fertilizer Recommendations												
														tons/A Lime	N	P_2O_5	K_2O	Mg	Zn	S						
1	Front	39	M-	442	VH	2364	705	VH	96	L	8.2	H+	150	50	VL	1.76	6.62	10.8	11.1	0.0	120	60	0	0	0	20
2	Side	29	L	220	M	2226	415	H	102	L	6.1	H+	117	61	L	1.96	6.68	8.9	12.4	0.0	120	90	140	0	0	20

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