

Whether you're new to gardening or have years of experience, one essential step should never be overlooked, and that is understanding your soil's fertility. While your plants may offer clues, you can't accurately judge soil nutrients by sight, touch, or guesswork alone. As planting season approaches, now is the perfect time to invest in a soil test.

A soil test provides a baseline of your soil's nutrient levels and pH. With this information, you can determine exactly what type and amount of fertilizer your garden needs—if any at all. In many cases, soils already contain adequate levels of phosphorus or potassium. Applying more not only wastes time and money but can also harm plants and the environment.

Soil nutrient levels naturally change over time, which is why Kansas State University recommends testing garden soil every three to five years. However, the accuracy of your results depends entirely on how well you collect your sample. Follow these simple steps to ensure reliable results:

How to Take a Soil Sample

- 1. Divide your garden into sections.**
Separate areas based on differences in soil color, texture, slope, or plant growth. Avoid mixing soil from unusual spots, such as low areas or old fence rows—these should be sampled separately.
- 2. Collect multiple samples.**
Using a clean bucket and a soil probe or spade, take 10 thin cores or slices from across each section. Sample soil to a depth of 6–8 inches. For best results, avoid sampling when the soil is overly wet.
- 3. Mix and prepare the sample.**
Combine all cores in your bucket, breaking up clumps and removing debris such as rocks, roots, and grass. From this mixture, take about one cup to one pint of soil. Spread it out to air dry on newspaper.
- 4. Package and label.**
Place the dried soil in a sealable plastic bag or container. Clearly label it with your name, mailing address, and phone number.
- 5. Submit your sample.**
Drop off your sample at your local Extension office in Erie, Iola, Fort Scott, or Yates Center. Chanute residents may leave samples at Breiner's Feed Store for pickup. The cost is \$20 per sample, and results are typically available within 7 to 10 days.

Phosphorus and potassium levels tend to build up in soil over time. Excess amounts can damage plant growth and may even leach into nearby streams and lakes, contributing to water pollution. In fact, recent tests from the K-State soil lab have found some Kansas samples with nutrient levels so high they were literally “off the charts.”

If your garden didn't perform as expected last year, poor soil fertility or an imbalanced pH may have been the cause. A soil test takes the guesswork out of gardening and gives you a clear path forward.

Soil Testing – The First Step to a Successful Garden

KRISTA HARDING – HORTICULTURE AGENT

Don't wait until after planting to check your soil. Test now so you have time to make any needed adjustments—and set your garden up for success.

Krista Harding is a K-State Research and Extension horticulture agent serving the Southwind District. She can be reached at kharding@ksu.edu or 620-244-3826.

K-State Research and Extension is an equal opportunity provider.