Iâ€™ve heard people say that it is impossible to know what kind of fertilizer and how much to use if you donâ€™t know the chemistry of your soil. Is this true? RD The short answer to this question is yes, and, fortunately, we have an easy, cost effective way for you to test your soil chemistry.

The best way to understand how soil chemistry works is through an analogy. Assume we didnâ€™t have the ability to measure the levels of gas or oil in our automobiles. If this were the case, we might just decide to add $10 worth of gas and a quart of oil whenever we went to the gas station. However, if we took this approach, we may not have enough gas to get to our destination and are quickly going to have oil all over our engine. In this analogy, nitrogen is like the gas for our cars while phosphorus and potassium are like the oil. Nitrogen is the primary nutrient that fuels plant growth and gets consumed in the process. Phosphorus and potassium are similar to the oil in our analogy in that they do not get consumed to the same degree, but appropriate levels of these elements are necessary for effective nutrient absorption. A soil test is the gauge we need to assess the levels of these nutrients in our soil. To perform a soil test, you will need something to collect your samples with and a bucket. We recommend you get between 15 to 20 samples of soil from locations scattered throughout your yard. Each individual sample does not need to be large but needs to go to a depth of about 6 inches. A bulb-planting device works well to gather these individual samples. Once you have your samples in a bucket, mix them up and remove any sticks or debris.

From this mixture of soil, bring a representative sample to the OSU Extension office. We will only need about a sandwich bag-sized amount of soil for your test.

When we receive your soil sample, we will send it to the Soil Science Lab at Oklahoma State University for analysis, and within two weeks, you should receive

the results. Your results will contain the levels of nitrogen, phosphorus and potassium found in your soil, along with the pH level. Included will be a recommendation on the nutrients you need to add and how much, along with recommendations on perhaps the nutrients you need to stop adding. The test has a cost of $10, but in all likelihood, it will be the best $10 you have ever spent on your lawn or garden. If you want to test a smaller garden or flowerbed, this will require a separate test, as those environments would be unique from your lawn. The same instructions would apply. You can get answers to all your gardening questions by calling the Tulsa Master Gardeners Help Line at 918-746-3701, dropping by our Diagnostic Center at 4116 E. 15th Street, or by emailing us at mg@tulsamastergardeners.org.