

Make Soil Tests Meaningful

By Wayne Tankersley
Pennington Forage Agronomist

“A single soil test taken haphazardly is of little value in determining true soil fertility.”

Every builder will testify that the basic component of all construction is having the proper foundation. This begins with the proper layout of the structure and establishing a firm footing upon which to build.

This same concept holds true for establishing and maintaining productive, persistent and high quality



The foundation of quality pastures and hayfields is proper soil fertility which is determined with a meaningful soil test.

pastures and hayfields. The “firm footing” pastures and hayfields are built on is soil fertility. And soil fertility begins with meaningful soil tests. Here, the word “meaningful” is strongly emphasized.

A single soil test taken haphazardly is of little value in determining true soil fertility. To insure accurate results and to enhance the value of the soil test interpretation, a few simple procedures should be followed when collecting soil samples for nutrient analysis. These include:

- **Collect samples at approximately the same time each year.** Soil fertility changes some throughout the year. Taking samples at the same time each year removes this variability.

- **Collect an adequate number of soil slices or cores to insure a good representative sample is obtained.** This will entail collecting one to two slices or cores of soil or more per acre sampled. If there are major differences in soil types, cropping histories or conditions such as eroded or wet acres within the field, collect separate samples from each area.
- **Collect samples at a uniform depth across the field.** For pastures and hayfields, each core or slice of soil taken should be from the soil surface down to a depth of 4-6”.
- **Thoroughly mix together the cores or slices of soil taken from throughout the field to form one composite sample.** Clay clods or soil clumps should be pulverized to loose soil for proper mixing.

To further enhance the meaningfulness of soil sampling, each year’s results should be recorded by field in a notebook or booklet for future reference. This allows soil fertility trends to be monitored over several years’ data. If soil nutrient levels are trending upward or downward, fertilizer application rates can be adjusted accordingly. This also prevents occasional sampling or analysis errors from over-influencing fertilization decisions.

For more information on soil sampling, contact your local university extension office or farm supply dealer. A soil test guide is also available on the Pennington website at www.penningtonseed.com. Click on the “Guides” tab under the Forage section on the site.