

Are soil tests still necessary even if pastures and hayfields are fertilized every year with a mixed fertilizer?

Keeping the correct soil pH along with maintaining adequate levels and proper balance of soil nutrients is key for optimum forage growth and plant health. The only way to determine this is through regular soil testing. Soil samples should be collected annually for three years to establish baseline soil nutrient levels and then every 2-3 years to monitor soil fertility in each pasture or hayfield. Soil test results should be recorded by field so that fertility trends can be easily tracked. Following correct sampling procedures is critical to ensure accurate results. An excellent “Soil Test Sampling Guide” that outlines detailed sampling procedures is included under the Forage “Knowledge Center” tab on the Pennington website (www.penningtonseed.com).

When is the best time to apply lime to pastures and hayfields?

While lime can be applied any time of the year, late fall and winter months are good times to apply it if soil pH needs to be raised. Rainfall necessary to carry the liming nutrients down into the soil is usually more plentiful during winter. In addition, applying lime at that time allows it to interact within the soil to change the pH ahead of spring green-up or planting of warm season grasses.

What does the term “stockpiling fescue” mean and how does one go about doing it?

The term “stockpiled” simply means accumulating early fall growth of tall fescue for grazing at a later time such as in late fall and/or early winter. The advantages of stockpiling are numerous. Allowing cows to harvest their own forage costs 30-50% less than harvesting the forage as hay and feeding it back to them. In addition, nutrients of grazed forages are usually higher than those in stored forages. Several studies have shown properly fertilized stockpiled fescue forage to contain 12-14% protein and 60% or more total digestible nutrients (TDN). In research conducted at the University of Missouri, beef cattle wintering costs were reduced by \$100/hd by utilizing a combination of stockpiled tall fescue and hay versus when hay alone was used. To stockpile tall fescue, old seed heads and low quality summer growth should be removed by clipping or close grazing in mid-August to early September. This stimulates new forage growth high in nutrient content. Remove the cows. If weather conditions are favorable, apply 40-80 lbs/ac. nitrogen in late August or early September to optimize fall growth of the fescue.

I seeded a mixture of white and red clovers into my fescue pasture in February. I want to stockpile the fescue this fall. I plan to apply nitrogen fertilizer in early September to promote the growth of the fescue. How much nitrogen should I apply?

Established stands of perennial clover can produce up to 100-150 lbs/acre or nitrogen annually, thus reducing or eliminating the need for the application of purchased nitrogen fertilizer. The addition of clover to a pasture will eventually reduce the total amount of purchased nitrogen needed for good fescue growth. However, perennial clovers seeded this past late winter or early spring have not become fully established and are not producing large amounts of nitrogen at this time. Therefore, some supplemental nitrogen fertilizer will be needed for stockpiling fescue in the fall following a late winter or spring seeding of clover. The key is to apply the proper amount of N to promote adequate fescue forage growth but not over apply it so that the fescue growth severely suppresses or chokes out the clover. In this particular situation, an application of 35 – 40 lbs. N/acre should be adequate to promote good fall fescue growth without severely affecting the clover stand. Even so, if the clover has not established well by the time of fall stockpiling, weak or small clover plants may be lost.

Is there a general rule of thumb for how much pasture is needed to maintain a horse?

Stocking rates can vary depending on pasture forages species, size of the animal, soil fertility, etc. In general, at least 1.5 to 2 acres of pasture should be provided per mature horse. Using a rotational grazing system greatly improves forage persistence and utilization.

Which fertilizer nutrients are most important for pastures and hayfields?

There are over a dozen nutrients that are considered essential for plants. Of these, nitrogen, phosphorus & potassium are needed in the greatest quantities. Nitrogen promotes plant growth and forage quality. Phosphorus is needed for nutrient transport within the plant and several key plant metabolic functions. Potassium is critical for plant strength, hardiness and disease tolerance. Don't overlook the importance of proper soil pH. Having the correct soil pH enables optimum plant uptake of these essential nutrients. Applying fertilizer and lime based on regular soil testing will insure that all nutrients are adequate for optimum plant growth and health.