

Finding the proper soil pH

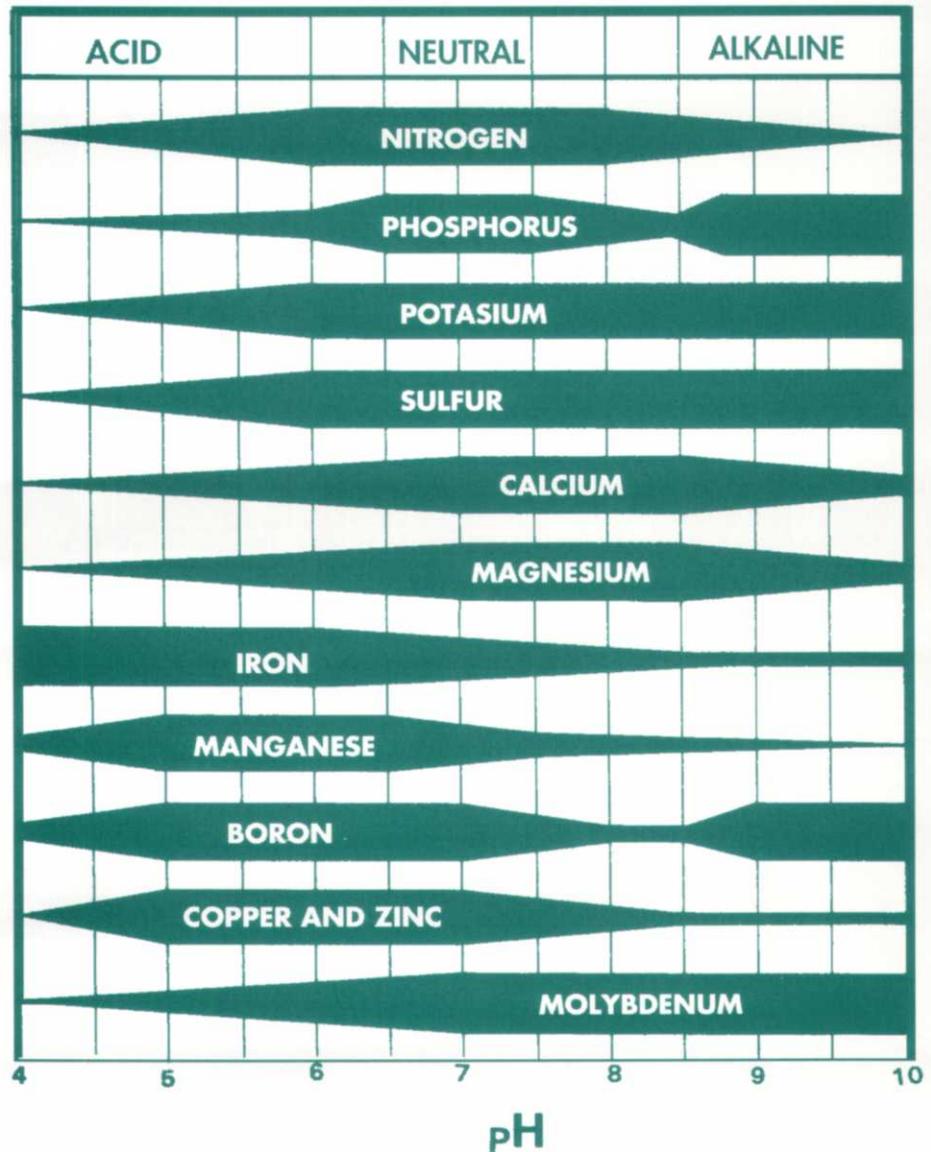
From the
Superintendent's Journal
*Are you getting
the biggest
bang for your
fertilizer buck?*

When you spend money for product and labor to apply fertilizer to your golf course you and your superiors want to see "green" results. You also want a healthy dense stand of turf with good roots to withstand grooming pressure, drought, and pest attacks.

Fertilizing a golf course takes a lot of planning and a little bit of luck to avoid interfering with play and fooling Mother Nature. Not everyone has the luxury of closing Mondays like some of the private clubs to take care of such critical tasks. Because it can be such an onerous job under heavy play pressure or changing weather conditions, you want to get the maximum benefit for your effort.

One of the most basic factors for good fertilizer interaction with your turf is the proper soil pH. The graph (shown on the right) shows how the availability of nutrients is affected by different pH levels. The ideal level for bermudagrass is centered around 6.5. A low pH can be raised one unit at a time by applying one ton of lime per acre. Conversely, a high pH can be lowered by applying one ton of sulfur per acre. Because sulfur has the potential to burn the turfgrass, it may be wise to limit application to the cooler months of spring and fall. Depending on the product used, split applications at half rates may be advisable. Lime is relatively safe, but is often a dusty nuisance during application.

Case in point: The soil used to build two new courses at Disney's Bonnet Creek Golf Club, Eagle Pines and Osprey Ridge, had a background pH of 4.5 - 5.0. Prior to planting the course the pH was not prop-



Soil pH affects availability of nutrients

erly adjusted. We have been persistently applying Granulime to correct the situation. Unfortunately, pH adjustments are sometimes painfully slow. This low pH condition resulted in a longer than normal grow-in period, and poorly rooted turf in many areas that were severely damaged by a recent hollow tine aeration. We're closed for a few weeks for some post-construction renovation, and we'll be applying more lime to raise the pH up to an acceptable level.

One of our sister courses at the Disney Inn, The Palm Course, has rebuilt its

greens this summer. Their greens with a proper pH in the soil mix are almost totally covered with two to three weeks growth.

The moral of the story is to make sure that your soil pH is in the proper range so that all the nutrients you apply will be available to your turfgrass plant. Soil sampling can be done by the superintendent or by one of his regular fertilizer vendors. The relatively inexpensive pH test can be a significant tool in helping to maximize your fertilization program. — Joel Jackson