

PROGRESS

Enriching the soil

Taking care of what lies beneath can make contractors' work on clients' properties more effective.

In 50 years, some things just don't change; in fact, they become even more crucial to the job than they were before.

As you look over the typical landscape of one of your clients and see the turf, shrubs and perennials directly in front of you, glancing up toward the trees and taking in the hardscapes, water features and even irrigation systems that come to life in the early hours, there is something on this site that should be high on your priority list to ensure all the other property aesthetics thrive.

This magic bullet is none other than the soil. A client's landscape is more than the plant materials visible on the property. What lies beneath the plants can boost the effectiveness of all the work landscape contractors do every day.

A June 1966 issue of *Weeds, Trees & Turf* focused a feature story on "Improving Soils," and many of those tips are still relevant today. Especially concerning the growth of turf, a rich soil can produce a thriving plant that requires fewer inputs.

As Roylyn L. Voss, a specialist in soil management from the University of Hawaii, Honolulu, wrote then, "improvement of soils for turf depends on early anticipation of problems and diagnosis of a condition before it starts."

In lawn soil pH tests, one of the most common problems found is low pH, otherwise known as acidic soils. For instance, in more than 24,000 lawn soil samples analyzed by the Virginia Tech laboratory in 1987, more than 51%

tested less than 6.0 pH. (The optimum pH level for turf is in the 6.0 to 7.0 range, according to John Street with The Ohio State University Extension, Columbus, OH.) More importantly, 28% of the samples tested less than 5.5 pH, a level at which the growth of turf can be adversely affected. The primary cause of acidic soils is the leaching of base nutrients from the soil, which tends to occur more frequently in areas of heavy rainfall or on heavily-irrigated turf, Street points out.

As soil "nutrients become less available, the lawn's color, vigor and ability to resist (or recover from) heat, drought or traffic stress will be reduced," Street explains. "Applications of enough lime to raise the soil pH above 6.0 can increase the availability of these nutrients, thus making it easier to maintain the quality and vigor of the lawn."

When applying lime to clients' lawns, landscape professionals should make sure they follow soil analysis recommendations.

Most soil test reports will indicate the lime requirement in pounds of pure calcium carbonate per acre or per 1,000 square feet, Street says. "Since most liming products are not likely to be pure calcium carbonate, calculate how much product to apply to the lawn," he explains. "To do this, find the number on the bag label, which is called the calcium carbonate equivalent; it will be stated as a percentage.

Next find the liming requirement stated in the soil test report."

Using these two numbers, Street recommends the following calculation: Liming requirement (from soil test) calcium carbonate equivalent = amount of product divided by acre (or 1,000 square feet).

Lime can be applied at any time during the year, except for when the turf is wilted or frost-covered, Street points out. "The turf should be irrigated after application in order to wash any lime off of the turfgrass leaves," he adds.

"Lime should be applied only when soil testing indicates it is needed," Street emphasizes. "Yearly lime applications without making a soil test are strongly discouraged because alkaline or high pH conditions may develop."

Many landscape companies have bolstered their lawn care programs by incorporating soil analyses. While soil testing services themselves aren't likely to be large profit centers, they can help contractors acquire new customers who are impressed by a more scientific approach or retain current customers by taking the extra step necessary to keep their landscapes and lawns healthy.



Keeping soil rich can boost plant vigor and your company's reputation.



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