

# SPRING FERTILITY: test first, then apply

*Don't be in a hurry to fertilize in the spring. Get a soil test and wait until the turf is growing.*

By DR. BILL KNOOP/ Technical Editor



**Knoop: don't be too early with warm-season applications.**

**Nitrogen is 'number one' in its ability to produce high growth.**

**J**ust as many managers have been busy over the winter months getting equipment ready for the next season, it's time to make plans for the landscape fertility program.

The goal of any fertility program is to supply the landscape with all the nutrients it needs and can use on a timely basis. Our job is to determine just what nutrients the landscape needs. It makes no sense to apply unneeded or unused nutrients. Many needed nutrients are already available and we may not need to apply them. Major nutrient sources are the

soil, air, water and the decomposition of organic matter. Many landscape plants can grow very well just on these, but when plants like the turfgrasses are planted and grown in highly dense populations, the natural supply of nutrients may not be adequate.

There isn't any totally accurate way to determine just what nutrients or fertilizer a landscape needs, but a soil test will provide a fairly good idea. Now is absolutely the best time to test the soil. It's been a long time since any fertilizer was applied and none of the plants are using any significant amounts. You should get an accurate indication of the soils' nutrient status. With all the concern about the environmental dangers of over fertilization, there is no reason not to soil test.

#### **Know the soil pH**

It's possible that the soil test

results will indicate that it's not necessary to apply some of the nutrients that have been a part of the fertility program in the past. Another valuable part of soil testing is that of determining soil pH. Remember, the soil probably contains nearly all the nutrients the landscape needs but these nutrients could be tied up chemically with other elements. Research has shown that when the soil has a pH of around 6.5, most plant nutrients are in an available form. Here again it makes sense to take advantage of these naturally occurring nutrients by simply following any pH adjustment recommendations detailed on the soil test report.

Even though the soil test report indicates which nutrients the landscape needs and what fertilizer to use and maybe fertilizer rates, and application timing, there are still several fertility management decisions to make.

Just about every landscape will need some nitrogen. Nitrogen is "number one" in its ability to produce high growth rates. Research has proven that fast growth rates aren't necessarily desirable. This means nitrogen should only be applied in modest amounts. Plants prefer nitrogen that is in its nitrate form. Nitrate nitrogen can get into the plant and be used by the plant quicker than any other form of nitrogen. All the other forms of nitrogen must



go through changes to the nitrate form in the soil before they can get into the plant. Many of these changes depend on soil organisms such as bacteria. Soil organisms are not too active in cold, wet soils. Under these environmental conditions only nitrate nitrogen may stand a chance of being used.

The value of using a slow-release nitrogen source for most landscapes has been well documented. Just realize that the slow-release nitrogens do not all become available the same way. The application of one of them during environmental extremes may be a problem.

#### When growth begins

The first application of fertilizer in the spring, north or

south, at least for turf, should be when growth begins. Many feel this should take place after two or three mowings, not on the first, sunny spring day. Note the optimum temperature range for both root and top growth of the cool-season and warm-season turfgrasses. Only when the whole plant is actively growing will it take up the highest percent of fertilizer nutrients. It doesn't make a lot of sense to apply a fertilizer during unfavorable environmental conditions. Remember we can fertilize cool-season turfgrasses in the fall because the soil temperatures are still favorable for root activity.

A common mistake is to fertilize warm-season turfgrasses too early in the

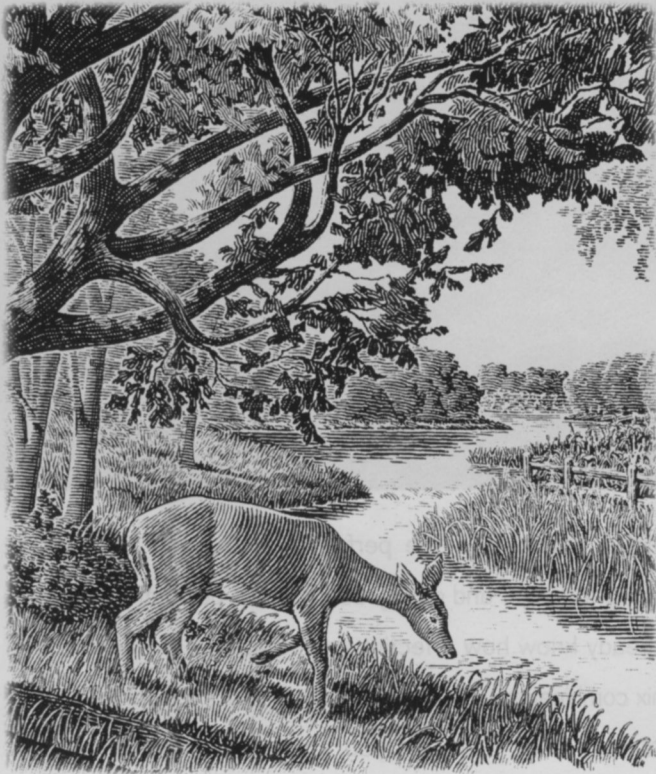
spring. Many times green-up occurs but the plant still may not be warm enough to take advantage of any fertilizer. People not totally familiar with the normal growth cycle for warm-season turfgrass complain about their turf not being responsive to early spring fertilizer applications. Note the optimum growing temperatures. Many times the plant is simply not warm enough to begin active growth even though it may have greened up.

Lawn service companies usually do not have the chance to apply fertilizer to their lawns at the absolutely best time. Chances are that because of work load some lawns will be fertilized before the best time arrives. Think about using a lit-

tle nitrate nitrogen in those first days of the round. It should provide some response while the slow-release material is waiting to kick in.

As for the trees and the other woody plants, they usually get enough nutrients from the turf fertilizer. If there is a need for even more fertilizer for the woody plants, applications are made during late winter and early spring, long before the turfgrasses need any.

Don't be in a hurry to fertilize in the spring. Get a soil test and wait until the turf is actively growing. **LM**



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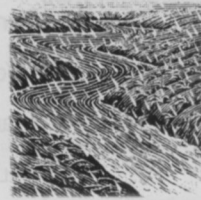
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