

CHALKBOARD

TIPS FROM THE PROS

CHANGE MAINTENANCE TO SPEED UP SPRING TRANSITION

One of the biggest headaches a sports turf manager can face is overseeded winter turf that slows warm-season grasses from coming out of dormancy. One of the reasons for this problem, according to Dr. Vic Gibeault of the University of California, Riverside, is failing to change maintenance practices in the spring to meet the specific needs of the warm-season grass.

Maintenance of overseeded cool-season grasses should be clearly different from that of warm-season grasses. The key is switching to the right program at the right time of year, says Gibeault. "It's a matter of altering maintenance practices to fit the grass desired for the particular time of year," he advises.

When average daytime temperatures reach 50 degrees F, managers of overseeded warm-season turf should switch over to maintaining the bermudagrass or other warm-season turf. This involves lowering mowing heights of bermudagrass to between 3/4 and 1 1/4 inch. This stresses the ryegrass or rough bluegrass and prevents it from shading out the young bermudagrass. It also allows sunlight to warm the soil faster. The bermudagrass will not kick in until the soil temperatures exceed the 50 degree mark. Light verticutting will also open up the turf for sunlight.

Gibeault and Steve Cockerham at UCR have been experimenting with covers to speed up spring transition. Translucent covers can increase soil temperatures as much as ten degrees in the spring. Covering the turf at night will also protect the turf and soil from low temperatures and help warm-season grasses break dormancy. "We have had fairly dramatic results with turf covers," he stated. "We hope to be able to release some solid data on the effect of covers on spring transition in the coming months. Gibeault favors covering turf to raise soil temperatures over application of herbicides to selectively control cool-season grasses in warm-season turf.

An application of quick-release fertilizer also favors warm-season turf. Ammonium sulfate, calcium nitrate or ammonium nitrate can be used to get the bermudagrass started. Application of dark-colored fertilizers or dyes may help the soil absorb sunlight and become warmer, but Gibeault warns that the soil compatibility of these materials should be considered before they are applied. It's the nitrogen that stimulates the

turf. Slow-release materials will not have the same impact as quick-release fertilizers.

Irrigation should be reduced or adjusted to provide deep, infrequent irrigation instead of shallow frequent watering. The root system of warm-season grasses is more adept at obtaining deep moisture than that of cool-season grasses.

Gibeault is currently conducting research to establish the average soil temperatures required for each major turfgrass to break dormancy. He says zoysiagrass and hybrid bermudagrasses take longer to break dormancy than common bermudagrass. The research is also compiling differences between bermudagrass hybrids in the areas of dormancy and spring transition.

MARKERS ASSURE UNIFORM COVERAGE OF PREEMERGENCE HERBICIDES

The key to effective control of weeds germinating in the spring is applying an unbroken barrier of preemergence herbicide to the soil. Gaps in coverage will allow patches of these weeds to develop. Once they've become established, their potential to produce seed can quickly upset a strong weed control program. This is especially true with annual bluegrass and crabgrass.



Boom sprayer applies preemergence herbicide containing dye to green.

To make sure coverage is uniform some turf managers overlap with the sprayer on each pass. Without being able to really see the herbicide on the turf, it's impossible to judge for the smallest overlap. The result is a combination of too much overlap, wasted herbicide and gaps.

A growing number of turf managers are mixing colorants in the tank with preemergence herbicides. These colorants are generally blue-green in color and break down quickly after application. A few examples are Regal's Dy'on, Milliken's Blazon, Precision Laboratory's Signal and Lesco's Tracker. Irrigation, which is often recommended after applying preemergence herbicides, will also wash the colorants off foliage. By actually seeing where the spray is, the applicator can keep overlap to a minimum and spot gaps for touch-up.

A secondary benefit of tracking colorants is being able to see if spraying equipment is properly rinsed. Inadequate rinsing can cause plugged nozzles and poor spray coverage. Today's pesticide laws require proper disposal or reuse of rinsate. Colorants can indicate when rinsing is thorough and may actually cut down on the quantity of rinsate.

In situations where the appearance of a colorant is unacceptable even for a short period of time, a marking foam can serve the same purpose. A device attached to the spray boom drops balls of foam along the edge of the sprayed area. The foam lasts long enough to mark the spray pattern then breaks down within minutes.

CALCIUM EXTENDS LIFE OF UREA FERTILIZER

Urea is one of the most economical forms of nitrogen turf fertilizer that exists today. Unfortunately, a large portion of applied urea is lost to the atmosphere during a process called volatilization and leached through the rootzone. Dr. Garald Horst, a physiologist with Texas Agricultural Experiment Station, has shown that the value of urea can be greatly extended by combining it with calcium.

In tests with bermudagrass in El Paso, TX, Horst found that the effects of urea could be extended up to eight weeks by combining it with calcium. Quality and color of the bermudagrass plots treated with urea and calcium did not begin to decline until the eighth week, whereas the straight urea plots declined after five weeks. Calcium nitrate-treated plots did not start to decline until 12 weeks has passed.

Horst reports that the quality difference in the turf was most significant in late spring and fall. He reasons that the calcium enhanced the production of roots and rhizomes, enabling the bermudagrass to capture more of the urea.