# Proper mechanics for field repair

#### BY CHRIS HARRISON

ho at Colorado State University's Hughes Stadium takes more bumps and scuffs than star quarterback Bradlee VanPelt? The answer is not the CSU Ram opponents' egos. The correct answer is the field itself.

Right in the Ram's fight song it says: "Tear the (opponent's nickname) line asunder, As down the field we thunder." Thunder, they do.

Sports turf managers at levels from pewee to pro know their precious turf will suffer through the wars over the weekend. The idea is to have good, dense turf at the opening whistle and be ready to return the field to playable shape as soon as possible after the final gun.

The football field at Hughes Stadium is home to the Colorado State Rams. Built in 1968, the field is being renamed for head football coach Sonny Lubick, who served for many years.

"My first suggestion is to overseed with rye," says Dr. Tony Koski, extension

turfgrass specialist, at Colorado State (CSU) in Fort Collins. "It's simple and it's cheap."

Koski is liberal with his ryegrass. He says a field manager should put down rye any time the field is being aerated, before games and after games.

"The players' cleats are great at seeding for you," he says with a smile. All that running up and down the field simply assures good seed-to-soil contact and puts the rye seed right where you need it to be.

In fact, the field at CSU was Windsor Kentucky Bluegrass as recently as 1988. Under Kalin Stovall, CSU sports turf manager's guidance, the stadium's crew continued to apply ryegrass to the field at every opportunity. Today, the turf is nearly 100 percent rye.

Yet another kind of thunder is heard at Fort Collins: rain and thunder. There is not a single drain line in the field at Colorado State. The base level under the field is bentonite clay, so it will hold water. In a typical year, when Fort Collins sees its normal 12 inches of rain, this should not be a problem. However, the rain, or even snow, has a bad habit of coming in great gobs. It typically shows up just before a home game. "Often our problem is snow during the fall games," Koski says. "Usually it is just one bad game per season." However, Koski knows that, even if the field in the 30,000-seat stadium is perfect for the other four or five home games, "It is the one bad game per season that everyone remembers!"

Stovall and the crew have come to see it as just another Colorado-size mountain to climb.

"We know how to recover it," Koski says. Typically they will apply a bit more than one-half inch of sand to the field. In conditions up to one-tenth inch of rain, the sand layer keeps it nice. While there may be scuffs on the field, the crowns remain intact, and that is what counts.

"You don't want to get too much sand down or their cleats can not get down," Koski cautions.

They also topdress the field completely in the spring. "We put one-half inch of sand down in the spring," Koski says. "It is rare for us to get a blow-out divot."

Since they began the sand topdressing program a few years ago (with one or two heavy applications of a half-inch or so per year), the field has stayed



more playable with light rain events. "And it has been easier to recover (with rolling) when heavier moisture hits," Koski says.

Mowing is important, too.

Mowing

# "The roller has been our savior." - Koski

Koski warns that some PGRs may discolor and stunt the growth of Poa annua. If you only have 5-10 percent Poa in your field, that stunting can actually help to reduce the Poa population. However, when your Poa popula-

"Allow the field to get up over one inch high and it gets slippery," Koski warns. "We love rollers at Colorado State," he continues. "With our bentonite

field, it smoothes out shallow ruts and undulations. Rolling firms the surface, too. The roller has been our savior," Koski says.

The team at CSU is not averse to noting good ideas from their neighbors in Denver. In fact, it is hard to keep from noticing field conditions at Invesco Field at Mile High, since the Rams will meet cross-state rival Colorado there just before press time.

"The roller can help the field look nice, too," Koski says. He recommends considering a directional-mowing scheme such as that done by Ross Kurcab at Invesco Field. Kurcab rolls in 10-yard intervals. From the goal to the five-yard line is mowed on one direction. From the five to the 15 is mowed in the opposite direction and so on, down the field. What this does is puts all of the numbers on the same color background (either light or dark stripe).

Ross's crew at Invesco Field is able to do the job while making wider turns with the mower. "So it is easier on the turf," Koski points out. "It looks good and it costs nothing."

Koski also recommends that sports turf managers give a growth-regulating product like Primo a try, if they can fit it into their budget. Some try it and don't think that the results merit the added cost, he says. Others see the regulators producing more tillering and giving better density to the turf. Since the grass grows out more than up, high traffic areas will have better traffic tolerance. With less leaf production, there are fewer clippings to deal with, too. tion is 30-40 percent or greater, it is probably not a good idea to use a PGR that will discolor, stunt, or even kill your Poa.

What makes for a busy field? Experts seem to agree that 25 events during a football season are about the limit of recovery for a native soil field. If there are 50 events, expect the field to show excessive wear. Of course, with one rain at the wrong time, all bets are off. Koski says that such numbers are probably valid but there is no good research to really back them up.

Stovall and the stadium crew have met a lot of challenges while trying to keep the facility up to par for both athletes and fans. Sometimes, though, it all pays off. In fact, many of the challenges and management practices at Hughes Stadium will change within the next year or so.

CSU recently received a large gift (approximately \$15 million) to improve and renovate the Hughes Stadium infrastructure. Part of the money is earmarked to include work on the playing surface.

There will also be some work done to improve the practice fields, including perhaps the installation of an artificial practice field.

The lessons learned will not be forgotten, however. Both Koski and Stovall will build on the lessons of past seasons as they move into a new era at the stadium. If only they could find a way to invest some of that cash in a system that would keep rain and snow away from the field on game days.

Chris Harrison, an Ohio-based freelance writer, can be reached at chrisharrison@adelphia.net.



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#### LINE MARKER

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The formulation allows for a greater application surface area penetrating the entire soil profile quickly correcting pH level. It then enters the root zone where nutrients are easily and efficiently absorbed by the root. It increases the nutrient availability around a greater percentage of plant roots. Harrell's Fertilizer/800-282-8007 For information, circle 062 or see www.oners.ims.ca/2083-062



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# Angels using underground hose system

#### BY DAVID G. MIHAILIDES

s a golf course superintendent, I quickly learned that hand watering is a part of daily routines for golf courses everywhere. For nearly five years Reelcraft Industries has been developing a product to replace quick couplers and to eliminate the need for hose dragging, yet still have the ability to hand water. Reelcraft liked the idea of a hose reel encapsulated in a polyethylene vault, tied directly into an existing or new irrigation system, and buried underground beside each green. Soon the first underground retractable hose reel was made and I made a career change to

see the project through.

The production version of Reelcraft's underground hose reel now offers 75 feet of 3/4-inch ID hose, which remains fully pressurized for immediate use and is accessible through a 6inch round lid at the surface. We have installed our underground hose reel system in industrial parks, theme parks, upscale residences, grass tennis courts and have received interest from zoo custodians, who dis-



like dragging hoses as they routinely hose down cage floors.

In 2002, my parents were vacationing in California and attended a game at Edison Field, home of World Series Champions, the Anaheim Angels. My father noticed four men of the grounds crew were all dragging one hose to water down the infield between innings. Four men and one hose.

I followed up with Barney Lopas, sports field manager at Edison Field, and then we met at this year's Sports Turf Manager's Association Annual Conference in San Antonio in January to demonstrate our new product.

Lopas is a proponent of consistent hand watering and he immediately realized the value of the underground reel for his operation. With limited time before the start of baseball season, Mr. Lopas purchased seven underground reels and installed them immediately.

> David G. Mihailides is founder of DGM Syringing Systems and a rep for Reelcraft. He can be reached at 800-444-3134, x349.

# Selecting a field marker

#### BY MARK HALL

What should you look for in a new field marker (other than aerosol or chalk markers)? There are several different types of field markers available. You should assess your capabilities for field marking operations and maintenance before making a purchase. Do you have staff who can manage the equipment effectively to reduce any down time?

Today the acrylic latex paint field markers are cheaper to operate than an aerosol marker if you have two or more fields to line regularly. You also might reduce the time involved as some markers can line a field in one pass.

There are three primary capabilities of the athletic field marker to consider: the line spraying operation, the method of powering the field marker and the platform for performing field marking. You need to evaluate performance, versatility, durability, and ease of operation and maintenance.

The field marker spraying operation consists of the plumbing for applying the acrylic latex paint, the assembly for laying down the line, and how the paint and assembly is controlled. Here are some things to consider:

What coverage does this field marker provide, one or two nozzle spraying? How flexible is the marker for adjusting to different line widths and the height of the grass? How does it help you get straighter lines?

Are the spray nozzles easy to adjust and clean? How does the unit prevent nozzle dripping? How are spraying accessories connected to the unit? Most units come standard with a spray wand and extension hose for tight line marking requirements, such as soccer field corners and stencil operations. The spray wand and hose should not be charged with paint until required by the operator. Other accessories should be easily attached to the unit without tools and impacting normal operations. Does the unit come with a means to keep the paint in suspension, such as a tank return line for agitation?

Today there are primarily three types of field markers, compressed gas (CO2), gasoline, and 12-volt battery power units. The compressed gas or carbon dioxide powered unit uses a rechargeable canister that will normally mark in the neighborhood of 20 fields before recharging. Determine your access to inexpensive compressed gas! The compressed gas is regulated and fed into the paint canister to force the paint to the paint shoe assembly. The gasoline-powered units normally have a lawn mower-type engine run a compressor that pumps paint to the shoe.

The 12-volt battery power units consist of a deep cycle 12-volt battery with an associated recharging unit and an electric motor with a pump to support operations. This new technology means airless operations and easier maintenance. The electric motor and pump is normally an integrated unit with internal diaphragms and valves.

Other issues to think about: How is the handlebar integrated into the field marker? The control of paint operations should be easily accessible near the handlebar grips so operator control doesn't suffer.

How easily and accurately does the unit move across the field during mark-



ing operations? A wider platform provides more stability in rough terrain. The center of gravity of the machine when fully loaded is important when moving the unit. Can one man easily move the machine?

How easy is the unit to clean and maintain? For paint preparations, painting, cleanup the operators should need minimal training. The operational parts of the equipment should be easily accessible with minimal tool requirements for adjustment, cleaning, and repair. With acrylic latex paint the clean up procedure should be quick while thorough to prevent paint residue build up.

Servicing of any field marking equipment is vital to the organization's operations and use of their resource constrained budgets. The manufacturer of the unit should have parts readily available and answer questions on operations and maintenance. Quick access to parts and the ease of replacing parts should be considered in your organization's maintenance capability. Most units should be maintainable with a minimal of set of tools such as screwdrivers, allen-head wrenches, and adjustable wrenches along with an operator's manual with trouble shooting steps.

Mark Hall is president of Tru Mark Athletic Field Markers, Norfolk, NE, 800-553-MARK.



#### WHITE MARKING PAINT

Game Day 8090 Ultimate White Athletic Field Marking Paint is a new product by Suntec Paint that is specifically developed with the needs of the sports turf professional in mind. This paint is very highly pigmented with concentrated amounts of titanium dioxide and optical brighteners to give an extremely brilliant white finish. The pigment loading contains no calcium carbonate, eliminating a limestone buildup on the field and drastically reducing settling after mixing. Suntec Paint/352-372-3421 For information, circle 057 or see www.oners.ims.ca/2083-057

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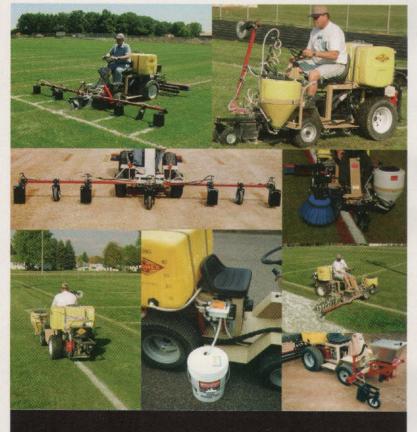




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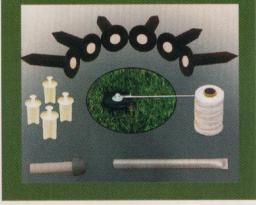
Additional features like "Event Days" per program and "Percent Water Budget" per month give the installer the capability to improve watering efficiency while promoting water

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