

Chapman Field Maintenance Program

All season

Mow 3x week at 1 5/8-in., adjust if necessary. Irrigate to meet turf needs and use schedules.

March

Field covers checked every other day to monitor turf conditions; covers remain on field until temps reach 60 degrees

Fertilize with 11-4-21 with gypsum at 1 lb. K per 1,000 sq. ft.

Apply needs-matched biostimulant package at 3 oz. per 1,000 sq. ft.

Apply soluble 20-20-20 fertilizer at 1 oz. N, P and K per 1,000 sq. ft.

Spike aerate; seed 50 lbs. bluegrass blend (containing 6-8 pre-specified varieties)

April

Fertilize with 11-4-21 with gypsum at 1 lb. K per 1,000 sq. ft.

Apply needs-matched biostimulant package at 3 oz. per 1,000 sq. ft.

Apply soluble 20-20-20 fertilizer at 1 oz. N, P and K per 1,000 sq. ft.

Apply soluble iron at 4 oz. per 1,000 sq. ft.

Spike aerate; seed 50 lbs. of bluegrass blend

May

Fertilize with 10-2-5 chicken-based compost at 1 lb. N per 1,000 sq. ft.

Apply needs-matched biostimulant package at 3 oz. per 1,000 sq. ft.

Apply soluble 20-20-20 fertilizer at 1 oz. N, P and K per 1,000 sq. ft.

Apply wetting agent at 6 oz. per 1,000 sq. ft.

Core aerate, drag cores, and vacuum debris

Topdress with 85 percent sand/15 percent peat/Seed 150 lb. bluegrass blend

Apply amino acid package at 2 ounces per 1,000 square feet

Apply soluble PK package at 3 ounces per 1,000 square feet

June

Apply needs-matched biostimulant package at 3 oz. per 1,000 sq. ft.

Apply soluble 20-20-20 fertilizer at 1 oz. N, P and K per 1,000 sq. ft.

Apply wetting agent at 3 oz. per 1,000 sq. ft.

Treat broadleaf weeds and crabgrass if needed following standard IPM procedures

Apply grub control if needed following standard IPM procedures; spike aerate

July

Apply needs-matched biostimulant package at 3 oz. per 1,000 sq. ft.

Apply soluble 20-20-20 fertilizer at 1 oz. N, P and K per 1,000 sq. ft.

Apply wetting agent at 3 oz. per 1,000 sq. ft.

Fertilize with 10-5-8 composted sludge at .75 lbs. N per 1,000 sq. ft.

Spot treat weeds if needed following standard IPM procedures; spike aerate

August

Core aerate, drag cores, and vacuum debris

Seed 200 lbs. bluegrass blend

Fertilize with 10-5-8 composted sludge at .75 lbs. N per 1,000 sq. ft.

Apply amino acid package at 2 oz. per 1,000 sq. ft.

Apply soluble PK package at 3 oz. per 1,000 sq. ft.

Apply wetting agent at 1.5 oz. per 1,000 sq. ft.

Spike aerate; seed 50 lbs. bluegrass blend during the last week of August

September

Fertilize with 23-4-10 with gypsum at .75 lbs. N per 1,000 sq. ft.

Apply soluble multiple nutrient package at 4 oz. per 1,000 sq. ft.

Apply second soluble multiple nutrient package at 4 oz. per 1,000 sq. ft.

Apply soluble 3 percent Silicon package at 1.5 oz. per 1,000 sq. ft.

Seed 50 lbs. bluegrass/perennial ryegrass mix each week

October

Apply needs-matched biostimulant package at 3 oz. per 1,000 sq. ft.

Apply soluble 20-20-20 fertilizer at 1 oz. N, P and K per 1,000 sq. ft.

Seed 50 lbs. bluegrass/perennial ryegrass mix each week

Apply soluble multiple nutrient package at 4 oz. per 1,000 sq. ft.

Apply second soluble multiple nutrient package at 4 oz. per 1,000 sq. ft.

Apply soluble 3 percent Silicon package at 1.5 oz. per 1,000 sq. ft.

Apply wetting agent at 1.5 oz. per 1,000 sq. ft.

Put on field covers during week of field downtime and on daily basis if needed

November

Core aerate, drag cores, and vacuum debris; seed 200 lbs. bluegrass blend

Topdress with 85 percent sand/15 percent peat; apply soil amendment at 50 lbs. per 1,000 sq. ft.; apply soluble 4-0-10 with iron

Cover field by Thanksgiving

December through February

Field cover checked every other day, anchoring sandbags moved, turf conditions monitored.



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Proper mechanics for field repair

BY CHRIS HARRISON

Who 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 peewee 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.

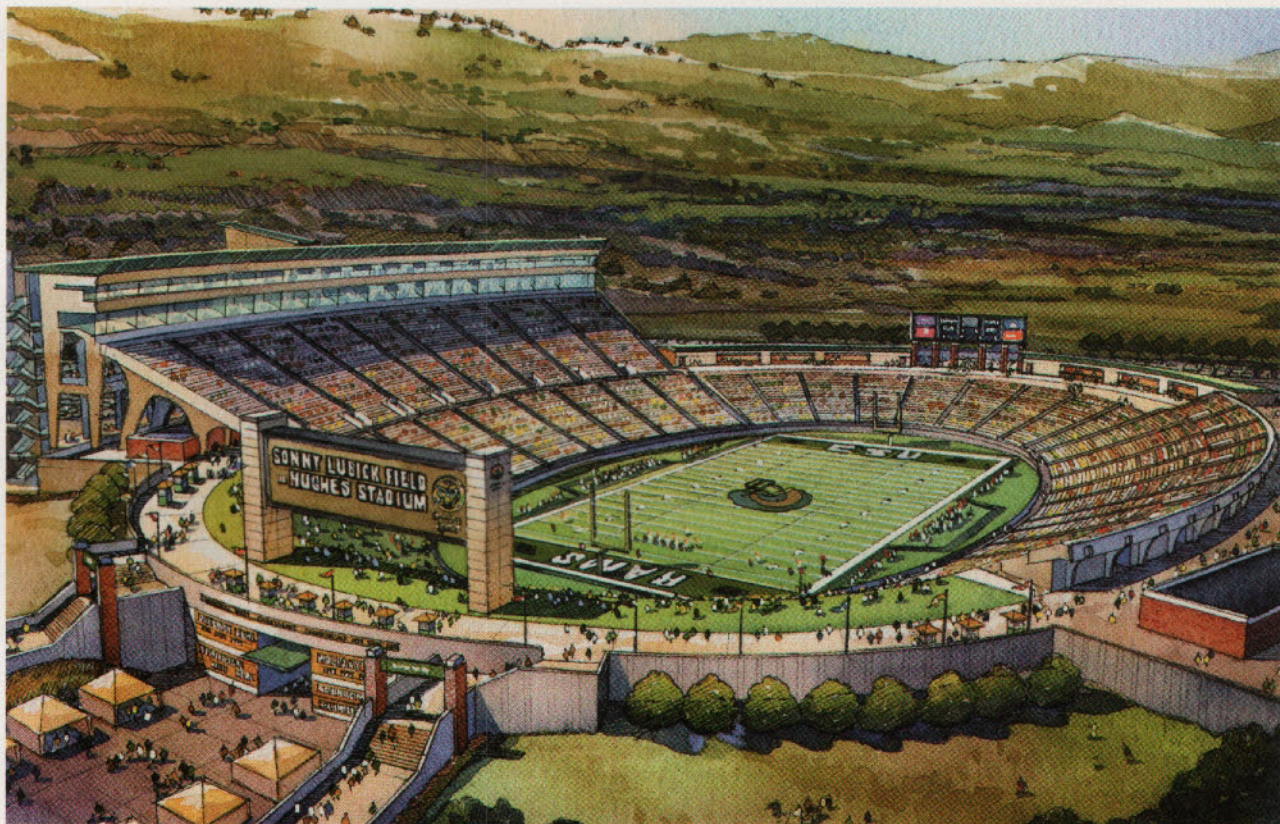
"My first suggestion is to overseed with rye," says Dr. Tony Koski, extension turfgrass specialist, at Colorado State (CSU) in Fort Collins. "It's simple and it's cheap."

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

Mowing is important, too. "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.

"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 population 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.

ST

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

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WHERE TO BUY: PAINT/MARKING EQUIPMENT

Athletic Field Services	419-836-5730	Diamond Pro	800-228-2987	Markers Inc.	440-933-5927	Pro's Choice/Oil Dri	312-706-3399
Ball Products	800-767-2255	Ewing Irrigation	619-562-3300	Missouri Paint & Field Graphics	800-426-0774	Smithco	610-688-4009
Bannerman Ltd.	800-665-2696	Franklin Paint	800-486-0304	Newstripe	800-624-6706	Suntec Paint	352-372-3421
Beacon Ballfields	800-747-5985	Huber Ranch Sod Nursery	800-553-0552	Partac Peat/Beam Clay	800-247-2326	Supaturf	800-838-7622
Becker-Underwood	515-232-5907	Kromer Co.	952-472-4167	PermaLine Sports	514-369-3432	TruMark Athletic Field Markers	800-553-6275
Broyhill	402-987-3412	Lesco	440-783-9250	Pioneer Mfg.	800-877-1500	Whitlam Paint	800-321-8358
						World Class Athletic Surfaces	800-748-9649



LINE MARKER

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Pioneer Manufacturing/800-877-1500
For information, circle 063 or see www.oners.ims.ca/2083-063



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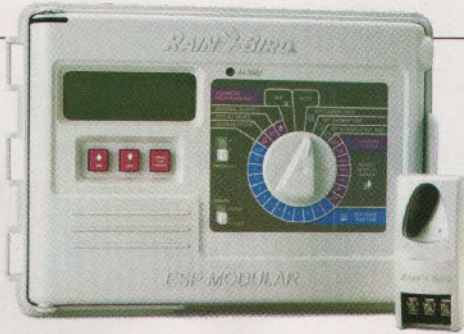
The latest NTEP data is reporting notable performance scores for Rendition Tall Fescue, which has been bred to provide a dense, very dark green and attractive turf.

Rendition produces a thick, slower-growing, dense lawn, with soft thinner leaves.

Smith Seeds/888-550-2930
For information, circle 058 or see www.oners.ims.ca/2083-058



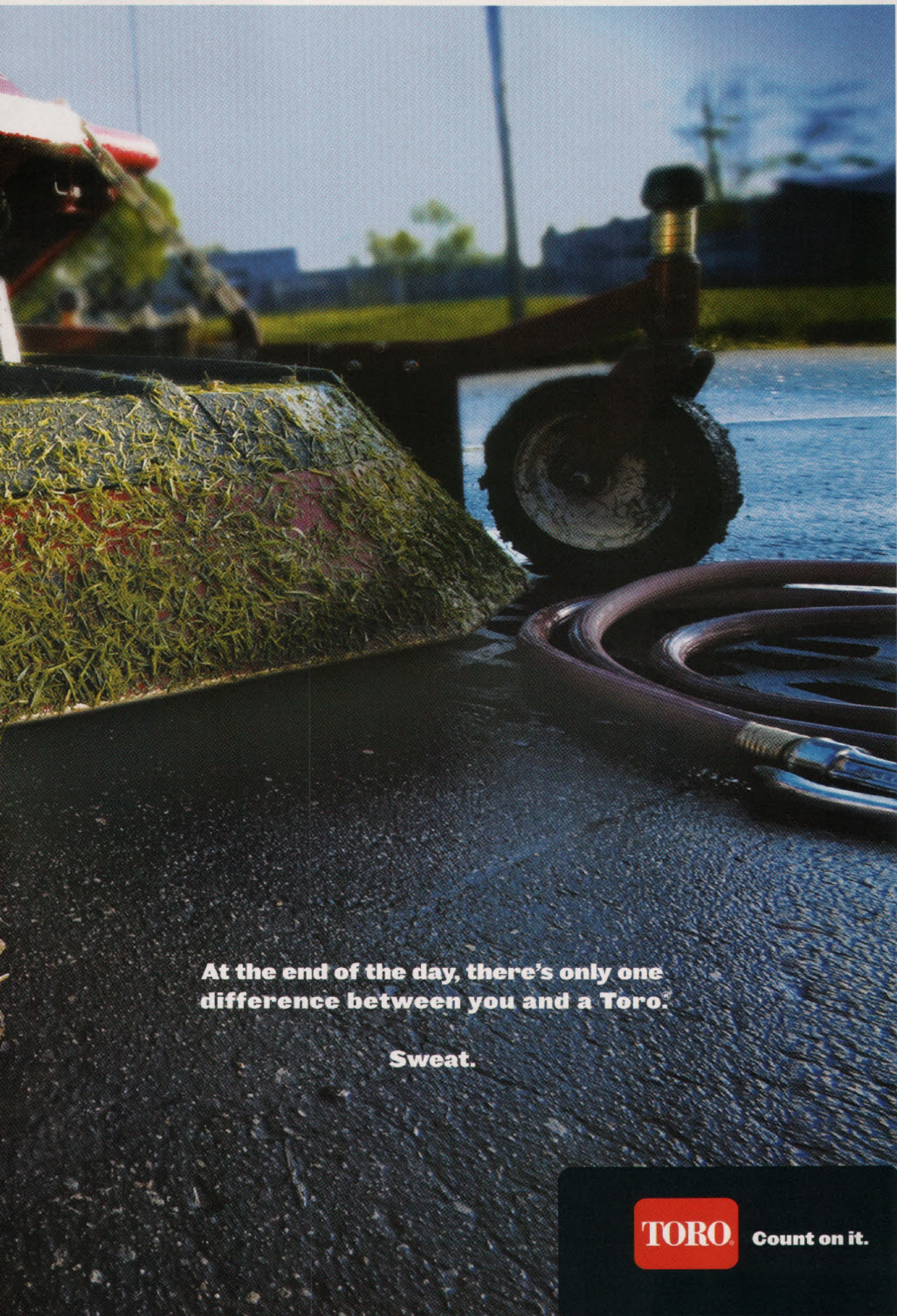
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MODULAR CONTROLLER

Rain Bird has added a new modular controller designed to eliminate the need for replacing a controller to add more stations. The ESP Modular Controller upgrades from four to 13 stations with the addition of three station modules that may be installed immediately or at a later date.

Rain Bird/800-282-1933
 For information, circle 060 or
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Harrell's Fertilizer/800-282-8007
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Turf-Seed, Inc/800-247-6910
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Poulenger USA/866-709-8102
 For information, circle 100 or
 see www.oners.ims.ca/2083-100

Angels using underground hose system

BY DAVID G. MIHAILIDES

As 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 6-inch 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.

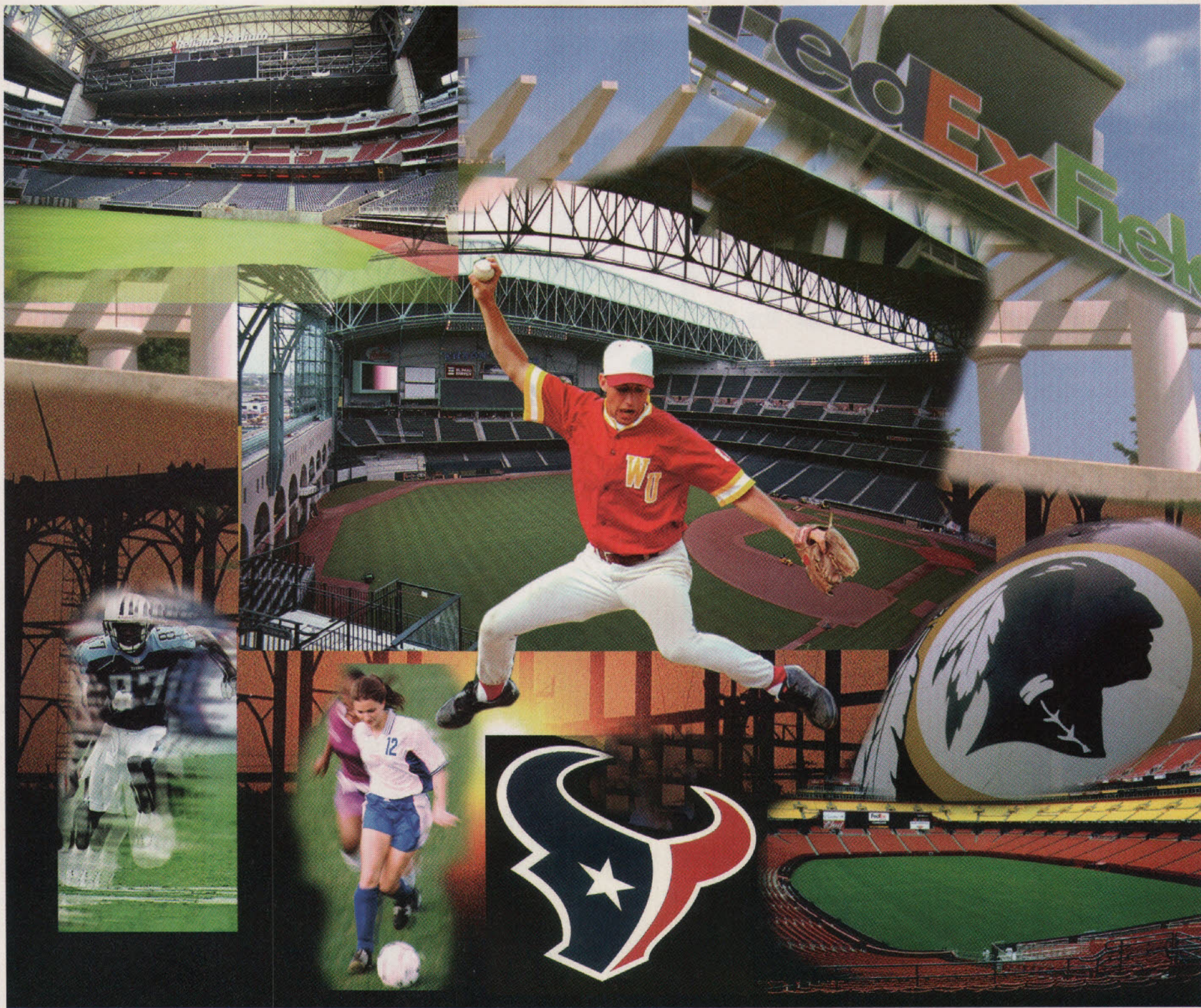
I followed up with Barney Lopas, sports field manager at Edison Field, and then we met at this year's Sports Turf Manager's Association Annual Conference in San Antonio in January to demonstrate our new product.

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.

ST

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





Fielder's Choice

It's hard to go wrong when you're choosing between two new warm-season turfgrass varieties as outstanding as SeaIsle 1 Seashore Paspalum and TifSport Bermudagrass. These two new patented cultivars can only be sold as certified sod or sprigs, and only by a member of a select group of licensed growers. Our top-quality producers have agreed to a stringent set of production practices. This means the grass you buy from a Florida, Georgia or South Carolina grower is going to be the same grass you buy from a Texas or California grower. And it'll be the same 10 years down the road. If you're involved with the installation or on-going maintenance of a sports field, you'll really appreciate how these turfgrasses compare to Tifway 419 and the other older varieties in use today.

While SeaIsle 1 is similar in texture and wear tolerance to hybrid bermudas, it may offer a number of important advantages. First and foremost, it can handle multiple stresses: prolonged drought, high salt levels, waterlogging and extremely high or low soil pH levels. Secondly, SeaIsle 1 can tolerate most types of alternate water sources, including wastewater, effluent, gray water, brackish, and even ocean water blends. It requires less irrigating, less fertilizer and only minimal pesticide applications when compared to other warm-season cultivars. It also handles cloudy conditions and the low light intensity of domed stadiums extremely well. That's why it was such a good choice for the Houston Astros' new field. Take a look at its pluses and specify SeaIsle 1 for your new sports field or renovation project.

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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.

ST

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