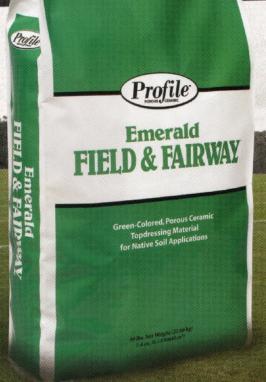
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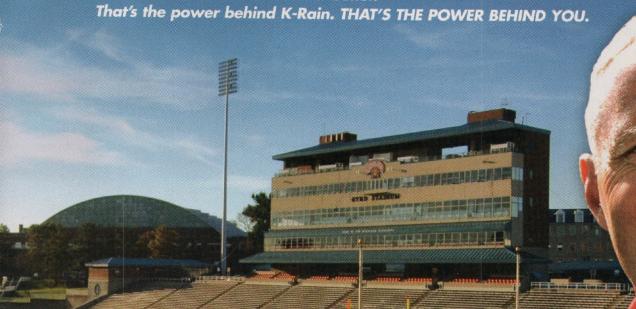
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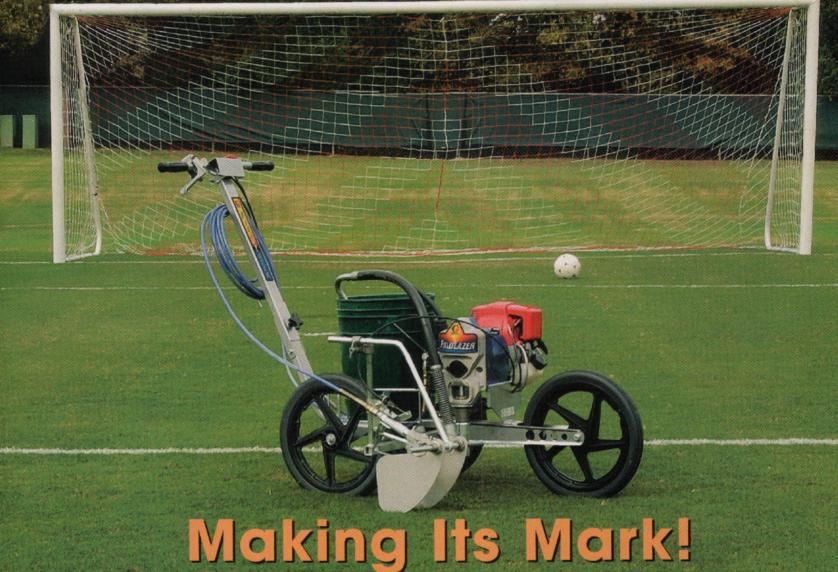
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On the cover: Thunder II, trained and ridden by Ann Judge-Wegener, is part of the traffic on Ross Kurcab's turf at INVESCO Field at Mile High. Photo by Jamie Schwaberow/Rich Clarkson and Associates, LLC. Editor's note: We regret not crediting the photographer of our June issue's cover, which was shot by Jay Soldner.



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From the Sidelines

Turf manager's research pays off



ERIC SCHRODER Editor

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im Peterson is sports turf manager for the Arizona Cardinals. You may have heard about the new stadium they are building in Phoenix for the NFL franchise (hey at least Bill Bidwell's putting up \$104 million of the \$370+ million cost, that's better than nothing, Arizona taxpayer!). Peterson had already been researching and studying what type of field would work best in his situation for 2 years before the actual decision was made to build one and 4 more years after that. He made his findings known to the engineers who won the job.

Of course those engineers wanted to explore options. After all, as Peterson says, it was their butts on the line, not his. He calls the deal he and CMX Sports Engineers finally struck a "collaboration," although "I influenced them more than they influenced me," he says.

And the result is America's first removable natural grass field. The turf, grown from stolons that were tilled in the first week of May, is Tifway 419 bermuda from Evergreen Turf, and it sits on a 12-millionpound, 234 feet wide by 400 feet long aboveground tray. The tray rests atop tracks and rolls on steel wheel sets powered by small electric motors, and will take 45 minutes to move into place.

Peterson says the Cards paid for him to create sample trays so he could determine how different drainage systems and rootzone mixtures worked. The rootzone mix that tested best included polyester and other fibers, and Airfield Systems was selected to be the final "layer" between the tray and the rootzone.

This drainage system allows vertical drainage to a sub-surface layer of air, approximately 12 inches below a sand-based field, as well offer heatcontrolled aeration into the drainage layer. Lance Barton of Airfield says there is PVC liner on top of the tray, then the drainage grid system, topped off with a filter fabric layer underneath the rootzone. "Our system can move 13 inches of water per foot per hour," Barton says. "It would take a monsoon not to play a game."

Peterson and I talked on June 2 and he said the field was 99% covered with turf and that he'd been cutting back on the water in favor of more oxygen. "The rhizomes get stronger then and dig through the soil, which creates a stable structure with wear tolerance," he says.

The field will be rolled inside the stadium only for game days; otherwise it will be outside. Workers will have access to the wheels and the underside of the tray for maintenance and repair from a special work trench.

Peterson says he's only looking at 10 NFL games this first season, one high school playoff and then the final one, the Fiesta Bowl, one of the BCS games. "There shouldn't be a need to replace the grass" this season, he says.

Jun Schroden

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"Survey says . . ."



MIKE TRIGG CSFM

mtrigg@ waukeganparks.org urvey says . . . outstanding!

The sports turf manager segment of our membership was surveyed in April about their satisfaction with STMA's services, and they were also asked to provide

input and ideas on how to enhance those services.

The news was outstanding and very insightful. STMA received a 35 percent response rate, which is excellent. In the world of statistics, this percentage validates the information we received as truly representative of our membership.

In early 2005, your STMA Board of Directors developed a strategic plan, which our committees use as a roadmap for their work. At each quarterly Board meeting, the Board reviews the progress of the strategic plan. At our upcoming fall meeting, we will bring back our facilitator and take a hard look at the future of STMA and set goals for where we want STMA to be in the next 5 years. Gathering information from our membership is critical to this process. We will be using your survey responses in setting our strategic direction for the future.

Some highlights from the survey include information on why you attend the STMA annual conference and why you do not. Our conference committee and all of its subcommittees will study this information and brainstorm ways to improve the value of the conference. We also learned about the other conferences, educational programs and training sessions you attend. You told us how important STMA's services and programs are to you and let us know how satisfied you are with them. I am very pleased to report that your level of satisfaction with this magazine is great–89 percent of you are "satisfied" to "very satisfied." That tells us our efforts in redesigning and refocusing *SportsTurf* have been beneficial to you.

Our members' level of formal education is phenomenal. Sixty-nine percent of our sports turf managers have an associate's degree or higher with 86 percent having attended college. That is truly a reflection of the importance that education plays in our profession. The survey shows that sports turf managers strongly pursue continuing education and use hands-on workshops and field days as the top method for attaining additional skills. The more education we personally undertake, the more highly respected our profession becomes in the world of sports. Look for complete survey results on page 44.

STMA is committed to member involvement and asking for your feedback through surveys is important to the future of our organization. We will be conducting more surveys to help us focus our efforts on your priorities. I promise that we will be respectful of your time and keep our surveys brief, relevant and few.

On behalf of your Board of Directors, thank you for the time and thoughtful responses you provided to us through this survey. We appreciate it and will use it to bring more value to you as we work to strengthen STMA for tomorrow.

Mike Trigg

Managing a **Natural** multi-sport & event field

By Ross Kurcab, CSFM



ditor's Note: Departing from our normal coverage of Field of the Year winners, we asked Ross to write this article. He and his crew won both the 2005 Professional Football Field award and 2005 Professional Soccer Field award for their work at INVESCO Field at Mile High in Denver.

Many of my friends who work for parks, schools, and universities, and many I know in professional sports venues, have already forgotten more than I know about multi-sports/events field management, but this magazine asked me to write about my experiences at our stadium, and give an overview of our approach.

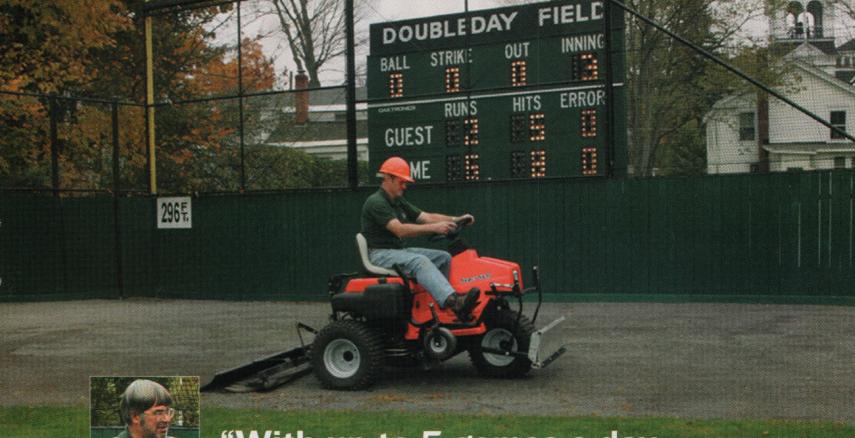
A good multi-sport field starts in the design phase. The Broncos had the good sense to get me involved with our field designer at the earliest stage. We placed a great level of importance on the design and construction phases. We knew from the start that we would be doing a professional football/soccer multi-sport field, which would also play host to all sorts of other public, corporate, and private events. We did our homework and went with a grass stabilization system for our entire surface.

Since I manage the turf, my participation in design and construction ensured quality. Not because I'm any good, but because I'm lazy. Why not save a ton of work (and money) by sweating the details during the design and construction phase? Credit is due our head coach Mike Shanahan, executive VP of Business Operations Joe Ellis, and our owner, Mr. Pat Bowlen, for seeing the value of my participation very early in the development process.

Field marking and layout

Field marking and layout issues present certain conundrums on a multi-sport field. We always check with the governing bodies of the sports involved. Most of them have provisions for field marking and layout concerning multi-sport fields (as well as other issues). Conflicting mandates are all sorts of fun! We always work layout of a field from a document emailed or faxed by the sport's governing body. We layout and mark the field with great attention to the detail of their document.

You'd be amazed at some of the mistakes and vague specifications in these documents. Some leagues require that old marking lines from previous games be removed (they never tell you how though). Any paint is "temp-stripe" if you scrub hard enough. When necessary, we



Joe Harris, Superintendent, Doubleday Field, Cooperstown NY

"With up to 5 games a day, the Smithco Super Star AFC makes my life a lot easier."

This year Doubleday Field was voted Schools and Parks Baseball Field of the Year by *Sports Turf Magazine*. Which is quite an accomplishment when you consider that between April and October over 350 games are played there. "We have as many as 5 games a day," says Joe Harris, Doubleday Field superintendent. "We use our Smithco Super Star to condition the field before every game." And no matter what the conditions - wet or dry - Smithco has the implements to get the job done.

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Drive	High efficiency drive wheel motors; hydraulic to wheels; hydraulic control system linked directly to engine
Braking	Positive dynamic braking through hydraulic system to each drive wheel
Electrical System	12-volt, I5 amp
Construction	Welded steel tubular frame with 9" ground clearance
Speed	0-I2 mph

The Super Star is loaded with features, including an advanced highly-responsive hydraulic drive system and hydraulic controls for all implements. The I6 HP gasoline engine is powerful, air-cooled and operates with a surprisingly low



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FIELD OF THE YEAR

"green-out" painted lines and/or logos with green paint. It's not a perfect science, but I believe it is the best for our surface. Straight green dye type products are too dark of a green for most fields. Also, they tend to be too viscous and roll off the painted leaf blades. We start with yellow paint, and add just enough green dye to get the tint we want. When we get it just right, the painted-over line will look too dark when looking into the sun, and too light when looking away from the sun. We try to green things out right after the game, allowing maximum time for the whole thing to fade out. If we can get enough time for a couple of mowings, even better. The downside of this process is that everything gets twice the amount of paint. Doing it once is no big deal, but for inseason tenant sports it can really multiply the paint damage.

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AND EVERY DAY AND EVERY
SEASON IS DIFFERENT.

Working together

Of utmost importance to me is cooperation between the user groups and the venue. Well before the season or event, we try to get all parties on the same page. When assessing the potential event, I always think to myself: "How many people, of what age group, wearing what kind of shoes, will be doing exactly what, at what time of what day"?

The "exactly what" part is the hardest. With details in hand, I make an assessment as to the damage on the field. I think "type, frequency, duration, placement, and time of year." "Type" refers to the type of damage or stress. Is it cleated traffic with adults? Is it essentially a heat build-up challenge? Maybe it's trampling/twisting damage (in my opinion, the worst of them all). Usually, it's a combination of damage and stresses. "Frequency" – is this a one-time event/game or is it part of a series/season? "Duration" can be as little as a few minutes, or as much as 8 days for a major concert build-out and teardown. A 5-hour marching band competition is rough, but doable. A 16-hour band competition is brutal.

"Placement" is about where on the field the event will take place and/or where the worst areas will be for a sporting event. My biggest concern, the thing that can keep me up at nights, is the "middle third" of our field. This is the area between the football hashes and about 15 feet outside. Our tolerance for damage here is low because this area will be center stage for the fall football and NFL grind. We do more than 50 private skills competition and team-building events on the field every year. We use the sides and ends of the playing surface for these events (outside the field of play). Our tolerance for damage is much greater here.

"Time of year" is also self evident, but critically important. A 10-hour day of youth football 1 week before the NFL pre-season begins in

August is tough, but that same event held in May or June is much more doable. The whole process becomes like an IPM approach to event-damage assessment, with economic thresholds and tolerances.

Once all these questions have been answered, I'm ready to start working with the user group or events planner on the rules. Rules are useless unless all parties agree on how they will be enforced. I try to work with the user groups or teams, I don't (and can't) just lay down the law. I treat them as paying customers, which they are. I carry handy drawings of the field map in my notebook to use as scratch pads during this process.

By now our events staff pretty much knows what can and cannot

