Topdress with material as close to existing root zone soil profile as possible

Begin gradual lowering of mowing height to 1-1/4-inch game height, switch to ride-on triplex reel mower as mowing height warrants

Deep tine aerate to deepest possible level

Monitor turf color, if needed apply

chelated iron at 2 oz. per 1,000 square feet prior to first game

Mark out field and paint prior to first game

Football Season Maintenance

Mow on Tuesday and Friday, more frequently if needed to maintain turf height at 1-1/4-inches, alternate mowing direction every 10 yards to stripe field Paint field lines on Wednesday, reline

for weekend games if needed

Change goal post cross bar as needed to accommodate high school and college level games

Irrigate as needed

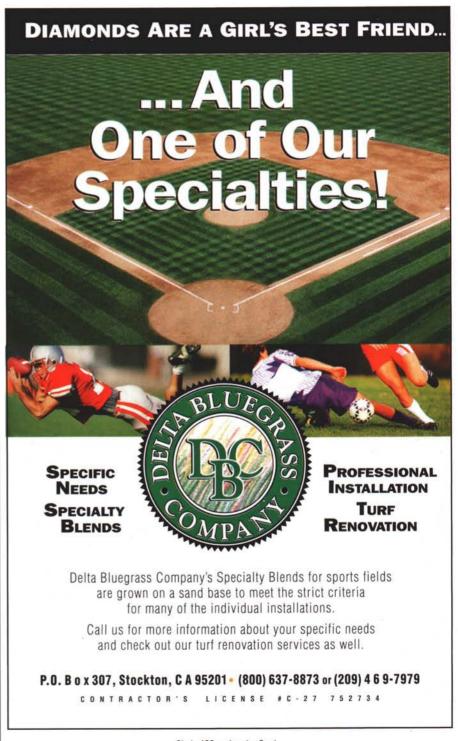


Forty-seven days after the last roll of sod was laid theShrine Club Circus came to town. Courtesy: City of Grand Junction

Lincoln Park location also includes a premium baseball facility with seating for 9,000. The baseball facility is the home field for the four area high schools and Mesa State College and for league baseball throughout the summer. In addition, it hosts the National Junior College Association World Series each Memorial Day weekend. In 1994, a new locker room facility was constructed to accommodate both football and baseball.

Felt has served as Sports Maintenance Supervisor for the City of Grand Junction for 18years. Along with the two athletic facilities at Lincoln Park, he also supervises the City's Canyon View facility with eight soccer fields, four softball fields in a quad arrangement and a baseball field, along with two softball fields at both Columbine and Pomona Parks. He notes, "It has been my goal, and the goal of the City, to provide the safest, most aesthetically pleasing playing fields for the players, fans and citizens of Grand Junction."

Bob Tracinski is the Business Communications Manager for the John Deere Worldwide Commercial & Consumer Equipment Division headquartered in Raleigh, N.C. He serves as public relations co-chair for the national Sports Turf Managers Association.



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Winter Turf Protection for Athletic Fields

by David Rulli

W inter can be a brutal time of year for cool season turf grasses. Most athletic fields are still in play as fields are in the early stages of winter dormancy. The days are getting progressively shorter and the nights are cooler. While most fields must also support activities in the spring, it is essential that the turf be as healthy as possible going into the winter season. The plan you develop and implement during the fall season will help determine your spring survival.

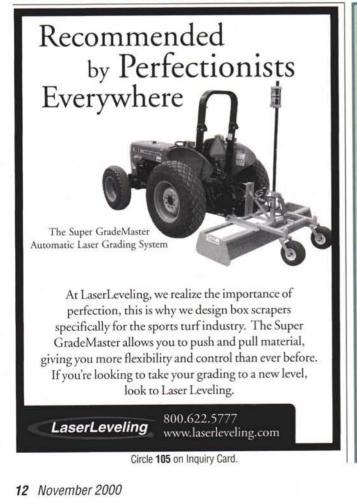
Successfully protecting fields for the winter season starts with preparation. Fertilization leading up to the winter season is a necessary element. Cool season turf needs sufficient nitrogen for sustained growth as long as temperatures allow and field use requires it. Also remember at the same time, the turf needs to hardenoff going into the winter.

Applications of preventive fungicides may be necessary, as snow molds (both pink and gray) are primary winter diseases. These diseases thrive in cool, moist conditions or when air movement is restricted due to tarping or stadium enclosure. Other contributing factors are excess thatch, matted top growth, and extended periods of snow cover and ice build-up.

To reduce disease susceptibility in the winter months, good cultural

"Successfully protecting fields for the winter season starts with preparation."

practices are required. Mowing height should be lowered to maintain the traffic on the field and to reduce the disease susceptibility during off



As far as winter turf damage goes our most important aspect is to not get caught off guard. In northern Minnesota we can get our first snow anywhere from early October to late December. We want our athletic field turf to be good and healthy going into the winter months. We normally start preparing in the end of August. We start aerating and fertilizing at this time so the turf can recover in plenty of time for winter. We also do broadleaf weed spraying and overseeding in September. This way when early spring soccer and baseball starts, we paint the lines and are ready to go.

One problem we have is when we do not get a good snow cover. With our strong winter winds some of our fields can blow clear of snow in the middle of winter causing freeze out of the turf. We have started planting living snow fences in these areas to catch snow, primarily using evergreens. Our two golf courses use greens covers and circumvent the greens with a snow fence to catch as much snow as possible.

Larry Anderson Park Maintenance Supervisor City of Moorhead, Minn. season (winter months). The type of turfgrass, field-use and off-season traffic on the field determines mowing height. Carbohydrate reserves are an important factor to winter survival. Leaf surface determines carbohydrate production so special attention should be given to the timing of lowering your mowing height as winter grows closer.

Aeration will also help the turf survive reducing compaction and allowing turf to drain excessive moisture. It can happen late in the season during play with a slicing type of aerator so as not to interrupt play or it can be done after the season with a core aerator. To combat any possible winter desiccation after core aeration, dragging of the cores or a top dressing is required.

If budget and manpower allow, tarps are another form of protection from moisture, cold, desiccation and build-up of snow and ice on the turf. However, with the turf covered, it is more vulnerable to disease, especially due to lack of air movement. It's important to monitor the conditions under the tarp throughout the course of the winter as potential problems can arise. Remove excessive snow during the winter on the field, especially if you're in an area where a freeze/thaw cycle is common to reduce ice build-up in particular areas of a field that might have shade problems. On the other hand, periods of abovenormal temperatures and excessive winds also need special attention. When temperatures allow water to be penetrated into the soil, irrigate to counteract the lack of soil moisture.

Winter desiccation results from dry, windy conditions for an extended period of the time during the winter months and often does not show up on a field until spring. Your best defense for winter turf protection is to regularly monitor your field throughout the winter and be ready to act when potential problems present themselves on your fields.

Dave Rulli is the sports stadium manager for Jeffco Stadium, in Lakewood, Colo. He is a member of the Colorado Chapter of the STMA, and has been an STMA member since 1996. We use Evergreen turf covers on our sand based competition football field. They help extend our growing season later into the fall than normally could be expected.

We time our placing of the winter cover so it will go on just a day or two prior to the ground freezing. (Dec. 21, in 1999) This helps the sod staples freeze into the turf, reducing the chance of the cover blowing off. Always, always, always mark your staples or pins with something so they can easily be found if they come loose. We now use red yard tied to each staple. We always pull the tarp into the wind, but try to get a calm day if possible. Always fold the edges over prior to pinning, thus you are pinning through at least two layers of fabric.

Prior to placing the cover we will double aerify our field with the coring tines working on 2 to 3 inch centers. We will sweep up all cores as we are trying to "mine" out any soil layer from the initial sodding. Secondly we broadcast 300 pounds of bluegrasses on the field as a dormant seeding. This seed will germinate prior to taking the covers off in Mid-March! Next we topdress with 1/4 inch of 100 percent sand topdressing and brush in. Our first year we topdressed too heavily (1/2"). Winter kill was very high and I felt this heavy topdressing was the major factor.

If the irrigation is still operational we will supplement any soil moisture we feel is needed. Next step is to apply a snow mold preventative fungicide. Lastly we cover it with the Evergreen covers. Be prepared for a goose or two to land periodically on your field. The ripples from the wind and the color of the covers seems to make a great image of a small body of water (I would love to know what they are thinking when they hit the surface!). This is our "putting to bed" process at the end of the year.

Mike Andresen Northwestern University Evanston, III.



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Trade Show Guide

The following is a complete list of all scheduled exhibitors for the STMA National Convention trade show. Use this guide to learn more about the products and services that the companies will be showcasing and find which booths you can't afford to walk by.

Adams Business Media

Arlington Heights, IL www.sportsturfonline.com Booth 709

Lowdown: The Adams Business Media Horticulture Group is comprised of seven vertical magazines serving interdependent markets in the lawn and garden, sports turf and horticulture markets.

Aitkin Agri-peat Elk River, MN

Booth 515 Lowdown: Bulk and bagged peat supplier for rootzone and topdressing mixes.



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- Design of custom netting, padding, and windscreen systems which improve field performance, appearance, and safety
- Equipment and supplies used for field construction, renovation, and maintenance
- Field maintenance seminars and training sessions

Learn about our products and services at **www.ballfields.com** or call **800.747.5985** for our free catalog. Online purchasing offered.

Athletic Field Services, Inc. Oregon, OH

Booth 717

Lowdown: The company specializes in construction, renovation and maintenance of athletic fields. They serve as contractors for municipalities, private organizations, schools, universities and professional and minor league sports organizations.

Aventis E.S.

Shawnee, KS Booth 502 Lowdown: CHIPCO Professional Products Group of Aventis Environmental Science was formed _________through the merger

of AgrEvo and Rhone-Poulenc. CHIPCO produces 23 fungicides, insecticides, herbicides and PGRs.

Ball Products, Inc. DeLand, FL

www.ballprod ucts.com Booth 510 Lowdown: Mike Matherne, STMA member and former head groundskeeper of Baseball City Sports complex has joined with Ball Products to head its athletic field division. Ball Products has been a leader in sports equipment manufacturing since 1987.

Bannerman Limited Rexdale, ON Booth 512

Lowdown: Bannerman has concentrated on manufacturing a combination of aeration, topdressing, infield groomers and field lining equipment over the last 40 years. Visit the booth to see the company's new B-QSS "Quick Slitt" Seeder.

Bayer Corp.

Kansas City, MO Booth 105

Beacon Ballfields Middleton, WI Booth 416

The Beals Group/Beals Sports Collaborative

San Jose, CA Booth 128 Lowdown: Site planning and design

firm specializing in athletic facilities, educational facilities and parks. They offer landscape architecture, civil engineering, strategic planning, master planning and facilitation.

Becker-Underwood

Booth 517

Lowdown: Becker is a leading manufacturer of quality turf products for sports turf professionals. Products include turf paint, biostimulants, spray pattern indicators and soil penetrants.

Broyhill Company/Fleet

(Line Markers) Ltd. Dakota City, NE Booths 615, 617, 619, 714, 716, 718 Lowdown: Since 1946, Broyill has manufactured sprayers and turf equipment for recreation facilities and golf courses. A recent acquisition has expanded the company's products to

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include turf utility vehicles.

Central Garden & Pet Co. Orlando, FL Booth 609

Chemical Containers, Inc Lake Wales, FL Booth 126

Club Car, Inc.

Augusta, GA Booths 621, 720 Lowdown: Manufactures golf, utility and transportation vehicles. CCI serves commercial, golf, industrial, agricultural and consumer markets.

Covermaster Inc. Rexdale, ON www.covermaster.com Booths 401, 403 Lowdown: Covermaster, an STMA member since 1986, features a new line up of athletic field covers as well as the Enkamat Plus turf protection cover.

Dakota Peat & Equipment Grand Forks, ND Booths 101, 103 Lowdown: The company provides a wide variety of products and services for golf courses and sports fields. The peat has been the choice for many of the stadiums that have installed natural turf surfaces during the past decade.

Delta Bluegrass Company

Stockton, CA Booth 208

Desso DLW Sports Systems Lakeville, MN

Booth 706

Diamond Pro

Dallas, TX www.diamondpro.com Booths 301, 303, 305, 307, 400, 402, 404, 406 Lowdown: Provides professional groundskeeping products and equipment nationwide to the athletic field and sports turf industry. The company has just introduced a new line of professional products called Eagle's Choice.

Douglas Sport Nets & Equipment Eldridge, IA

Booth 614

Lowdown: Douglas is a manufacturer of sport net and sporting equipment, windscreen, custom netting, protective padding, baseball and softball tunnels, field screens and tarps.

DTN Weather Center Omaha, NE

www.dtnweather.com Booth 807 Lowdown: DTN provides GIS-ready data, forecast services, turn-key solutions and weather display systems to

tions and weather display systems to over 20,000 businesses. On-line service is available.

Fieldmaster Infield Groomer

Lenexa, KS www.fieldmaster.com Booth 701

Lowdown: Fieldmaster groomers open the infield with spring tines, level the infield with double leveling bar, roll the infield and brush the field for a tournament finish.



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First Products, Inc. Tifton, GA www.1stproducts.com Booth 425 Lowdown: Manufactures the only line

of vibrating aerification and seedbed/cultivation equipment on the market. The AERA-vator uses a vibrating tine action to fracture the hardest soil with very little surface disruption.

Floratine Products Group

Collierville, TN www.floratine.com Booths 810, 811

Lowdown: Rick Izzo of the Akron Aeros and Scott McCoy of Boston College achieved sportsTURF Field of the Year awards for their fields after incorporating Floratine's approach and products into their management programs.

GMS - For Sports Fields

Orlando, FL Booth 721

Lowdown: Owned and operated by Floyd Perry, an athletic field consultant and public speaker, GMS sells industry-specific tools and equipment for progressive groundskeepers.



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Goossen Industries Beatrice, NE www.goossen.com Booths 800, 801 Lowdown: Goossen manufactures turf maintenance equipment designed for commercial use and rugged applications. The product line includes bale choppers, vacuums, debris blowers and chipper/shredders.

GreenTech & SoilAir Companies

Richmond, VA Booth 708 www.greentechitm.com Lowdown: GreenTech offers the ITM system, designed to manage turf wear, field drainage, airflow and the root zone profile within a sports field. The system, designed to manage turf wear, field drainage and airflow, is currently installed at Giants Stadium and Millennium Stadium.

Gro-Power, Inc.

Chino, CA www.gropower.com Booth 713 Lowdown: Manufacturer of humus base fertilizer/soil conditioner products designed to enhance the microbial levels and soil environment in

sports fields and other areas.

Harco Fittings

Lynchburg, VA Booth 607 Lowdown: Harco has been manufacturing gasketed pipe fittings for the irrigation market since 1970.

Harrell's, Inc.

Lakeland, FL www.harrells.com Booth 122

Hummer

Turfgrass Systems, Inc. Manheim, PA Booths 115, 117, 119, 121, 123, 214, 216, 218, 220, 222 Lowdown: Hummer field contractors specialize in design and projects. build Customers include the **Baltimore** Ravens, Penn State and Temple Univ.

Hunter Industries Escondido, CA Booths 405, 407

Jaitire Industries, Inc. Denver, CO Booth 722

JDL Equipment Company, LLC Montgomeryville, PA Booth 420

Lowdown: Suppliers of athletic field line markers and paints, Mitsubishi generators and pumps, Bowdry liquid removal products, Waterless Company No-Flush Urinals and debris removal equipment.

John Deere Company

Raleigh, NC www.deere.com Booths 201, 203, 205, 207, 209, 300, 302, 304, 306, 308 Lowdown: John Deere products

Lowdown: John Deere products include hand helds, walk behinds, front mowers, zero-turn mowers, tractors, skid steers, utility vehicles and special machines for athletic turf maintenance.

Kifco Irrigation

Havana, IL www.kifco.com Booth 224 Lowdown: Kifco manufactures Water-Reel self-travelling sprinklers. The portable machines cover from 1/2 to 10 acres in a single setting and can be

fitted with optional booster pumps.

L.R. Nelson Company

Peoria, IL www.lrnelson.com Booths 110, 112 Lowdown: L.R. Nelson manufactures professional in-ground irrigation products.

Landscape Management

Cleveland, OH Booth 125

Lowdown: Athletic Turf is a leading publication serving the growing \$1.8 billion sports field market. Published bimonthly, each issue covers maintenance, design, construction and management topics for professional facilities, schools, municipal and park facilities, contractors, designers and consultants.

Laser Leveling Inc.

Tampa, FL Booths 808, 809 Laserturf Southeast, Inc. Palm City, FL Booth 727

Lowdown: Sports turf precision leveling and topdressing, level to tolerances of +/-1/8 inch, inorporate gradient fall, any size area (small tee to full-size playing field).

Lebanon Seaboard Corp.

Lebanon, PA www.lebsea.com Booth 605

Lowdown: With over 50 years experience, Lebanon serves the domestic and international market through broad based independent dealers whose local experts are ready to serve turf professionals. They produce a complete line of fertilizers for landscape ornamentals.

Lesco, Inc. Rocky River, OH Booth 705

M.A.S.A., Inc.

Jasper, IN Booth 107 Lowdown: Offers a color catalog featuring a wide assortment of athletic field maintenance equipment and training devices.

Midwest Rake Company Warsaw, IN Booth 120

Millcreek Manufacturing/Earth & Turf Co. New Holland, PA Booths 225, 324

Missouri Turf Paint & Field Graphics

Kansas City, MO Booth 715 Lowdown: MTP manufactures and distributes products used in athletic field marking. Products include bulk and aerosol paint, turf dye, stencils, application equipment and marking systems and accessories.

Motz Group, The Cincinnati, OH www.themotzgroup.com Booth 108 Lowdown: The group consults, designs, and builds athletic fields nationally and internationally.

MST Consultants, Inc. Rossville, KS Booth 606 Lowdown: Majestic Sports Turf Consultants can help plan the best method to attack your problem. Whether you need help with equipment, personnel, fertilizing, mowing, watering or maintenance, a plan can be custom designed for your specific needs.

Munie Outdoor Services, Inc. Caseyville, IL Booth 524

Lowdown: Munie is St. Louis' premier sports turf construction company offering comprehensive services in golf course and athletic field construction, renovation, irrigation and maintenance.



Whether it's to strip a field, or install a field using our turf or yours, CYGNET TURF is able to perform under all kinds of conditions and is able to respond to most emergencies.Our patented equuipment is able to cut and install from very thin, to very thick turf. So, when you are ready to install....give **CYGNET** a call!

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November 2000 19

STMA Conference Attendees:

Walden Lake Golf and Country Club is the site for the 1st Annual STMA-Textron Golf Tournament on January 17, 2001.

Join us for the 1st Annual STMA-Textron Golf Tournament

It's a special, super golf event no sports turf manager will want to miss...plenty of food, fun, prizes and golf!

The January 17th tournament is sponsored by Textron Golf, Turf & Specialty Products and will help raise funds for SAFE – the Foundation for Safer Athletic Field Environments.

Transportation will be provided to beautiful Walden Lake Golf and Country Club where you'll join fellow conference-goers for a wonderful day of golf. Greens fees, refreshments and lunch are included in your registration fee. The cost is \$100 before 12/1/00 or \$110 after 12/1/00. All registration money will be donated to SAFE.

How to sign up? Easy. Just check the box on the registration form in your conference packet.

Join us for this exciting, super golf event at the STMA 12th Annual Conference & Exhibition!

National/Smithco/Turfco Minneapolis, MN Booths 501, 503, 505, 600, 602, 604

Novartis Crop Protection Greensboro, NC Booth 116

Nu-Gro Technologies, Inc. Grand Rapids, MI Booths 104, 106 Lowdown: Nu-Gro is the largest manufacturer and marketer of slow release nitrogen in the world. Products include Nitroform, Nutralene, SCU and Isobutylidene Diurea.

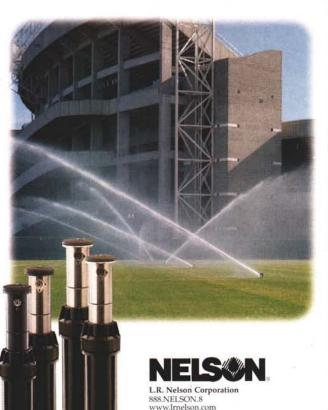
Nutramax Laboratories, Inc. Edgewood, MD www.nutramaxlabs.com Booth 704

Lowdown: Products provide biologically active L-amino acids and essential nutrients needed to maintain healthy turfgrass, protect turf from stress and enhance effectiveness of maintenance programs.

PBI Gordon Kansas City, MO Booth 317 Lowdown: An employee-owned company, PBI Gordon is a national leader in specialty pest management products

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