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10 ASTM Recommendations for Skinned Area Soils Are in the Works

When a field’s skinned areas are in excellent condition, ballplayers can concentrate all of their efforts on the game. Skinned area surfaces provide the traction for a player to round the bases at full speed, and the cushioning for that slide to beat the ball. The ASTM is currently in the process of developing guidelines for the construction and maintenance of these important skinned areas.

13 The Cutting Edge on Reel Verses Rotary Mowers

Mowing is an important part of the art and science of sport turf management. Sport turf professionals must choose equipment and develop mowing strategies to fit the specific needs of their fields. Different cutting units entice turf managers with a range of great features, but if a mower doesn’t deliver a cut that consistently meets standards, it is simply unacceptable.

20 Forward Motion: Putting Tissue Tests to Work

Athletic field turf is composed of a mass of complex organisms striving collectively and individually to grow and thrive in what all too often becomes a hostile environment. The job of the sports turf manager is to create and maintain conditions which support the positive elements of that environment, and to reduce the negative elements. Used in conjunction with soil testing, tissue testing is a very important tool in this process.

On the Cover:
Proper maintenance of a baseball diamond’s skinned areas ensures optimum field conditions at game time. Photo by Barclay Hallowell.
sportsTURF Takes a New Direction

This month, sportsTURF says good-bye to Jim Williams, its editor for the past two years. Jim established high standards of quality for the magazine, and I hope to continue this tradition as I step into his shoes. We wish Jim all the best in his future endeavors.

As your new editor, I look forward to working closely with the STMA to bring you the most current and pertinent information in the turf industry. I will also count on readers for feedback and new ideas to keep sportsTURF on the right track in 1998 and beyond. My schedule is already filling with plans to attend trade shows, and I intend to remain in constant contact with leaders in the field.

I recently attended the 1998 STMA Conference and Exhibition at Disney's Coronado Springs Resort in Buena Vista, FL. The trade show gave me the opportunity to meet the association's officers, and to speak with many of the members who made the trip. The conference's various meetings, seminars and tours were well planned and very informative. They provided me great insight into the workings of the STMA, and gave me many ideas for future topics to explore in the magazine. The association's action-oriented plans promise to aggressively meet the challenges its members will face in 1998.

With the current boom in new stadium construction, the next year should be an exciting and very eventful period for the industry. In a recent L.A. Times article titled "Who Wins in Stadium Shoot-out," Michael Hiltzik and Lisa Dillman looked at the recent deluge of new stadiums being built around the country. "More than $12 billion in stadium and arena construction has been completed since 1990 or is underway or proposed."

This simply reflects stadium growth on the professional level. These figures are negligible when compared to the sum of the rest of the turf industry. For every professional complex that is built, many more high school and college fields, parks and recreational centers are developed to accommodate the burgeoning populations of our nation's communities.

The turf industry will certainly rise to the challenge of meeting these growing needs. With the help of the STMA, sportsTURF will continue to bring readers up to date on these developments.

If you have any questions or comments about the magazine, please contact me at my direct extension (847) 427-3005, fax me at (847) 427-2006, or send me an e-mail at sberens@mail.aip.com. Better still, look for me in the Adams Business Media booth at the next trade show you attend.

Steve Berens, Editor
TIP O’ THE MONTH

Is Sulfur Effective for Lowering pH in Turfed Soils?

Soil testing is important in lawns to help determine the soil pH and fertilization needs. This is especially true for potassium and phosphorus fertilization. Experts have established the acceptable level of soil pH for turf to be between 6.0 and 7.5.

Some soil testing labs recommend applying sulfur to lawns that exceed these limits to reduce the soil pH. Unfortunately, though, it is only possible to apply 5 lbs. of sulfur for every 1000 sq. ft. of turfgrass per application. Increasing this amount can expose lawns to extensive damage from burning. Further, labs suggest limiting sulfur application to twice a year. At this rate, it takes many, many years to significantly lower the soil’s pH level.

To better solve the problem, slightly increase the annual nitrogen, phosphorus, potassium, and possibly iron that you add to the lawn. This strategic fertilization tackles the problem more quickly and safely than the sulfur solution. Alternatively, you can till sulfur into a soil at much higher rates prior to turf establishment to reduce pH levels.

The above tip comes from Zac Reicher, Assistant Professor / Turfgrass Extension Specialist for the Turfgrass Science Program at Purdue University, via the program’s web site: http://www.agry.purdue.edu. If you have a tip you’d like to share, send it to sportsTURF 2101 S. Arlington Heights Rd., Arlington Heights, IL 60005, or send an e-mail message to sberens@mail.aip.com.

Correction: In our January issue, the article entitled “Taking a Closer Look at Rootzones” contained incorrect illustrations. In figure one, the two photos of electron micrographs should be reversed. In figure two, all four micrographs are incorrect. We apologize for the error.
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Controlling Turfgrass Pests, 2nd edition by T. W. Ferrieman, M. C. Shurtleff, R. Randall, H. T. Wilkinson, and P.L. Nixon. This book concentrates on the diagnosis, fundamental biology, and control of turfgrass weeds. Demonstrates how to identify turfgrass pests, when and why they occur, the damage that may take place, the life cycles of the pest, plus culture, chemical and other management strategies designed to keep pest damage to a minimum. 720 pgs. 4031 $85.00

Management of Turfgrass Diseases Second Edition, Joseph M. Vargas, Jr. Completely revised and updated to provide the latest information on maintaining a healthy turf and identifying turf diseases. covers cultural, genetic, biological and chemical approaches to turf management and provides practical solutions to everyday problems. Fungal, bacterial and viral diseases; black layer disease; and diseases caused by nematodes are addressed for all major grasses. Tips on irrigation, fertilization, and grass culture w/ 72 full-page photos and more than 100 figures. 320 pgs. 4016 $67.00

Guide to Golf Course Irrigation System Design and Drainage, by Edward Pira. Completely revised with new exercises, practical examples, numerous new figures, and expanded sections covering a wide variety of irrigation system components. Guides the reader through every phase of an irrigation program — from design to construction — program scheduling to operation and maintenance. A reference for managers and superintendents to plan effective irrigation systems, ensure appropriate capacity, easy installation and practical operation and maintenance. 400 pgs. 4004 $59.95

Color Atlas of Turfgrass Diseases on Golf Courses, by Dr. Toshihiko Tanig and Contributing Author, Dr. James B. Beard. Presents over 350 high-quality color photographs of all the major turfgrass diseases that occur on both warm and cool season grasses and is international in scope. The standard color guide to disease diagnosis and pathogen identification for golf course superintendents and turfgrass practitioners. Maps are included to assist in disease identification by providing geographical locations where each disease/pathogen is likely to occur. It also provides color photos of step-by-step guidance on diagnostic techniques for laboratory analysis which can be used by practitioners. 140 pgs. 4005 $79.95

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ST3
ASTM Recommendations for Skinned Area Soils Are in the Works

by Steve and Suz Trusty

The diamond. To some, it's a coveted jewel. To sports turf managers involved with baseball and softball fields, it's equally prized. That grass-free patch is not only where the action is during a game, it's where the majority of field care time is spent.

Why so much concern about "the dirt?"

Excellent condition of the skinned area allows ballplayers to concentrate all their efforts on the game. Skinned area surfaces provide the traction for a player to round the bases at full speed and the cushioning for that slide to beat the ball. They must possess the right combination of underlying hardness and a cleat-depth layer of soft material overcoating to be effective in the game. Smooth transitions between skinned and turfed areas are also necessary. There must be no lip to alter the trajectory of the ball, so no bad hops will influence the outcome of the game.

If the desired results are so obvious, it must be easy to establish the recommendations for skinned area soils. Well, not really, according to Dr. Don Waddington, who is now Professor Emeritus of Soil Science at Penn State University after retiring from his role teaching and conducting research in the university's turfgrass program. Dr. Waddington also serves as Chair of the Natural Playing Surface Subcommittee within the Sports Equipment and Facilities Committee of the American Society for Testing and Materials (ASTM).

In the first place, baseball and softball diamonds aren't limited to premium fields. Waddington says, "Unfortunately, at the sandlot level it's not unusual for a backdrop to be set up at the corner of a field and for the basepath to be "created" by wearing away the turf as young players run the bases. These skinned areas really are nothing more than exposed soil.

"With organized play, skinned area soils are part of native soil fields, augmented native soil fields and various construction formats of sand-based fields. All differ in levels of funding for construction and post-construction field maintenance. Even with the same basic construction and equal budgets, there are differences among teams and practices," says Waddington. "An ASTM practice would give a definitive procedure for performing one or more operations. Guidelines give a series of options or instructions. They do not recommend a specific course of action. Of course, with either guidelines or standards, people have the choice to follow them, or not to follow them. ASTM doesn't legislate any more than the Sports Turf Managers Association (STMA) legislates."

"For example, ASTM has established standard methods in soil analysis. That doesn't mean that everyone in the world has to use those methods. Other entities, like the United States Golf Association (USGA), can adopt those standard methods and insist that they be followed. That creates an incentive for testing facilities to follow the standards."

"What we are developing for skinned area soils is a guideline for construction as opposed to a standard set of practices. It's designed more for the novice than for those involved at the professional and major college levels, where many already have a feel for what they're doing. We're working to set parameters with enough breadth that skinned area soils could be firm and impervious, or be quite porous and dependent on internal drainage instead of surface drainage."

Guidelines, Not Practices

Because of all these variables and the need to set workable parameters, Waddington and members of the ASTM Subcommittee on Natural Playing Surfaces are working on standard guidelines for skinned area soils. "These are guidelines, not standard guidelines. Not Practices. Because of all these variables and the need to set workable parameters, Waddington and members of the ASTM Subcommittee on Natural Playing Surfaces are working on standard guidelines for skinned area soils. "These are guidelines, not standard guidelines. Not Practices. Because of all these variables and the need to set workable parameters, Waddington and members of the ASTM Subcommittee on Natural Playing Surfaces are working on standard guidelines for skinned area soils. "These are guidelines, not standard