

ASTM Standards for Skinned Areas

by Steve and Suz Trusty

Turf may be the first impression of a baseball or softball field, especially when striking patterns are etched in that sea of green. But when it comes to playing the game, the overwhelming majority of the action takes place on that turfless patch of "dirt," the skinned area encompassing the basepath, bases, home plate and the skinned area at the center of the jewel where the pitcher reigns.

In baseball and softball, as in all field sports, ideal conditions take the field factor "out of play," allowing each player, regardless of age, gender or experience level, to play the game to the best of their own abilities. Ideal conditions for the skinned area surfaces along the basepath combine a lower layer of hardness with a cleat-depth coating layer of soft material to provide the traction necessary for a player to round the bases at full speed and the cushioning that protects the player in a slide to beat the ball to the base. Ideal conditions offer smooth transitions between the skinned area and surrounding turf with no ridge or lip to alter the path of the ball and thus influence the outcome of the game. Ideal conditions strike the right balance between wet and dry moisture levels, providing a playing surface that is neither sticky nor powdery.

The Big Picture

The American Society for Testing and Materials (ASTM) has multiple subcommittees examining various aspects of achieving higher levels of safety in sports. Dr. Don Waddington serves as Chair of the Natural Playing Surface Sub-committee, which is within the Sports

Equipment and Facilities Committee of the ASTM. Dr. Waddington is Professor Emeritus of Soil Science at Penn State University after retiring from his role teaching and conducting research in the University turfgrass program.

Dr. Waddington notes, "Subcommittees are working on standards

American football fields. Another group is studying the relative abrasiveness of synthetic turf surfaces. There's a task group under the subcommittee on footwear looking at a method of measuring traction. There's a group looking at eye protection. The whole aim is to have more safety in sports."



Bird's-eye view of Coors Field, Denver, Colo., home field of the Colorado Rockies.

Courtesy: Trusty & Associates

and guidelines for everything from bikes and in-line skates to gymnastics and camping. A subcommittee working on tennis courts and track surfaces has developed guidelines for grass tennis courts. There's a group looking at specifications for pole vault landing pits and a group under playground surfaces looking at new standards for specification of engineered wood fiber for playground surfaces. One group is studying the shock absorbing properties of North

Defining Ideal

A major problem in establishing recommendations for the construction and maintenance of skinned area soils is the broad range of fields. Baseball and softball diamonds vary from the true sandlot level, where the basepath is exposed native soil established by the players wearing away the turf as they run the bases, to the premium fields of Major League Baseball.

Dr. Waddington says, "It's a long

process to identify all the issues involved. 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 with differing 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 groundskeepers on what constitutes the 'right' degree of hardness and softness for the ideal skinned area.

"For construction, you could have something quite sandy that would have high moisture needs to maintain ideal playability or you could have something with a high clay content that would be quite stable, but might be too hard when dry. You need to know what kind of post-construction maintenance the field will receive in order to construct the right field for those maintenance conditions. The amount of play the field must support and the age and skill levels of the athletes are further considerations.

"I'd hate to see the day when there was only one way to construct and maintain a softball or baseball field. I don't think every Major League infield should be the same. They should all be reasonable and playable, but I think having the home field advantage brings another dimension to the game."

Guidelines, Not Practices

The need to set workable parameters among all these variables is the reason the ASTM Subcommittee on Natural Playing Surfaces is working on standard guidelines for skinned area soils. Waddington says, "It's important to note that, in this instance, we're working on guidelines, not practices. An ASTM practice gives a definitive procedure for performing one or more operations. Guidelines give a series of options or instructions that do not recommend a specific course of action. With either guidelines or practices, people have the choice to follow them or not to follow them. ASTM doesn't legislate."

The guidelines for skinned area soils under development by the subcommittee should give a range of construction options for the three different types of fields: native soil, sand and modified soil. Within the range of options would be construction for-

mats relying heavily on internal drainage and those relying primarily on surface drainage. Also, within those separate ranges, there should be room to accommodate the differences in tools, soil amendments, equipment, personnel and overall funds for maintenance at varying levels of field use. The goal is a set of practical guidelines that can be

applied to real world situations under real world practices.

Guideline Status

According to Waddington, the ASTM Subcommittee on Natural Playing Surfaces has nearly finalized the draft proposal that was used to solicit comments and help. A task force composed of ASTM subcommit-



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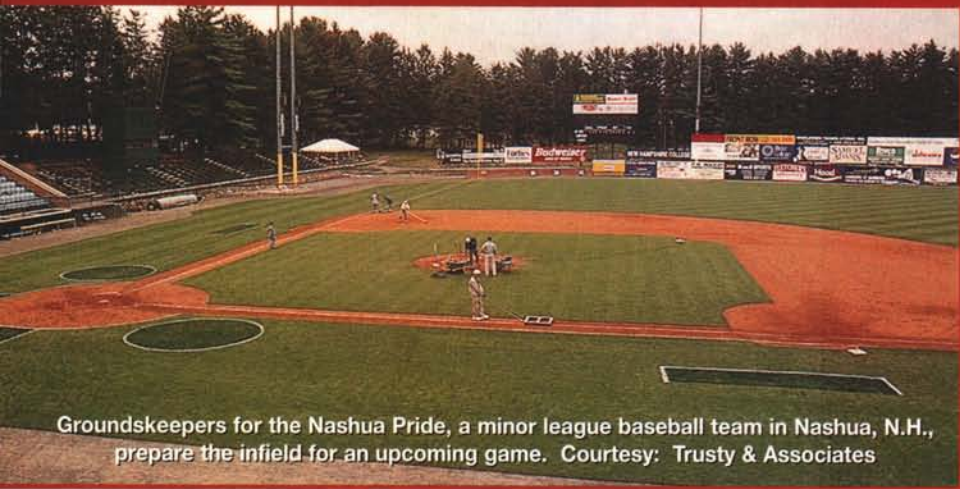


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Groundskeepers for the Nashua Pride, a minor league baseball team in Nashua, N.H., prepare the infield for an upcoming game. Courtesy: Trusty & Associates

tee members sought input from others who are involved in the sports field industry, but are not ASTM members. Dr. Waddington also sent the draft proposal to many university personnel for their input.

Dr. Waddington notes, "We've asked these individuals to make comments, express their objections, if any, and provide information to support any objections. Keeping to the spirit of ASTM, if you don't like something

you suggest something that is better.

"Something that goes to a vote of the subcommittee and receives no negative votes then goes to the full committee for a vote. (The full committee and the ASTM Society votes are taken on the same ballot.) All this must follow the ASTM established timetables."

The ASTM Committee on Sports Equipment and Facilities officially meets twice a year, in May and

November. Much is accomplished in the intervals between the official meetings as the committee members incorporate decisions and suggestions into their specific projects. Proposals developed pass through a range of voting, from task force, to subcommittee, to committee and the total membership of the Society. Changes may be incorporated at each step of this process.

The guidelines will be submitted to the subcommittee for vote at the next cycle and the votes, comments and any objections will be received in the summer of 2000. Should this round of votes achieve the anticipated positive response, the guidelines could go to the main committee and Society levels for vote after the November, 2000, meeting.

Steve and Suz Trusty are partners in Trusty & Associates of Council Bluffs, Iowa. Steve is Executive Director of the Sports Turf Managers Association.



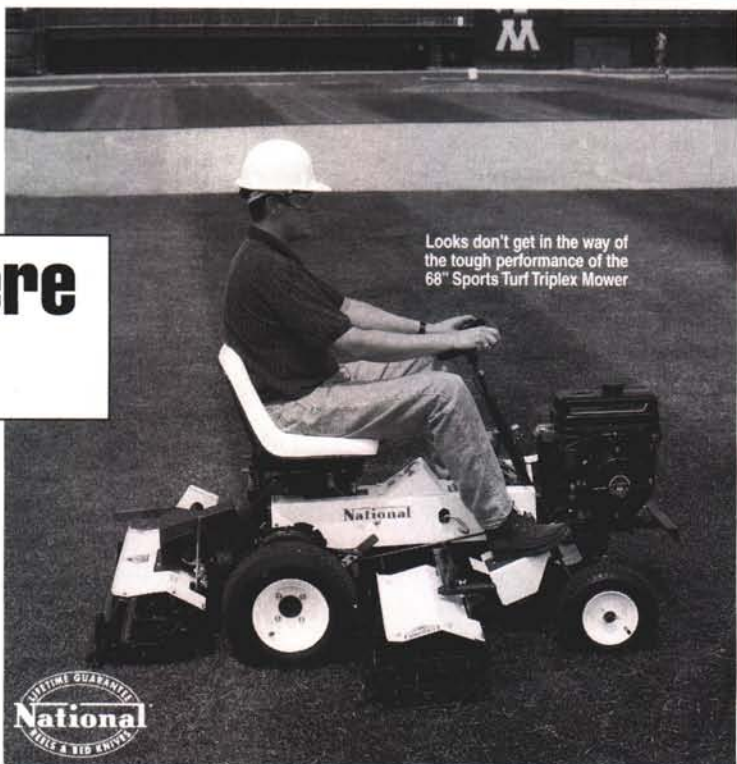
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