

# Synthetic turf maintenance gets closer look

By Eric Schroder

**N**ate Patrick, business development manager for Redexim Charterhouse, spoke recently about the increased attention being paid to maintaining the synthetic infill surfaces proliferating around the country. The Synthetic Turf Council (STC) says there will be about 1,200 installations in 2006. Patrick said though many buyers may view their fields as “no maintenance” the fibers do get matted down, and the infill gets compacted, which can cause drainage issues if the rubber compacts. So “no maintenance” is out the window as companies such as GreensGroomer, Bannerman, Sisis, Parker Minuteman, as well as Redexim Charterhouse now market products specifically for this purpose.

All the carpet manufacturers that stitch these synthetic fields together have become members of the STC and agreed to use the same Gmax parameters, Patrick said. He and Redexim Charterhouse Vice President Paul Hollis (congrats to your Cardinals!) are members of STC’s new maintenance committee that currently is re-writing the organization’s maintenance standards. These standards when available

should be “must-read” material for synthetic turf managers.

Patrick has talked to a lot of turf managers with synthetic fields. “One big question I hear is ‘Is using this machine going to void my warranty?’” he said. Patrick said his company’s machines (and others) have been approved by all the synthetic field manufacturers. When asked, “What do I need to do to maintain my synthetic turf field?” Patrick says there are three important maintenance practices that will prolong field life: 1. Keep all surfaces



The Verti-Air machine blows high-speed air deep into the synthetic turf carpet, then a rotary brush picks up the dislodged infill material and debris and throws it on a filter, which returns the cleaned infill to the field.



Nate Patrick, business development manager for Redexim Charterhouse

free of debris, 2. Routinely use a grooming brush to vertically stand the field’s fibers, and 3. Use a tool that can agitate and fluff your rubber infill so it doesn’t become compacted.

Tom Moore, national sales manager for GreensGroomer, said some of the top synthetic manufacturers approached his company more than six years ago about making a machine for their products. “We had a reputation from the golf grooming market and we were fortunate to be asked by the manufacturers to get involved,” said Moore. He agrees with Patrick and said it is absolutely necessary to have a machine to stand the fibers upright (“They have a long nap that wants to lay over”), and that the sand and rubber infills will compact and need leveled out.

“We have a lot of sales through our dealers but even more from recommendations from manufacturers or architects,” Moore said. Some synthetic marketers include equipment packages as part of the deal, and that some architects are now specifying certain equipment to be used on their fields, he said. “For example, Sportex installers use our equipment, and then train the field staff on this equipment after the installation,” Moore said.

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# Hardness testing is essential after construction

By Sam Ferro

**W**hen constructing a new artificial turf surface there are, of course, many items to consider. While most construction related matters should be dealt with during contract negotiations or during construction, one very important factor needs to be taken care of right after the field has been installed. Field hardness testing (Gmax) is recommended by the Synthetic Turf Council, manufacturers, and turf experts for all new artificial turf installations. Hardness testing should be performed on-site after the infill has been added to the turf system.

Maximum allowable Gmax results or an acceptable range of results should be part of the architect and/or manufacturer specifications. Hardness testing is one of the final steps in the approval of a newly installed field. Results from another field or lab test results should not be used. Testing procedures must use the equipment and techniques detailed in ASTM method F 355A. A Clegg hammer is not acceptable for hardness testing on a synthetic field.

Gmax measurements provide an indicator of the shock attenuation or hardness of a surface. While this test measures field performance, it can also be related to safety. The impact from a fall is either absorbed by the player, equipment, or the field. Fields that are too hard can present an elevated risk of injury to the users. Fields that are too soft can present player performance problems.

Studies, including one by Northwestern on impacts to the head of a middle linebacker, show that a Gmax value of 200 should be the maximum threshold to provide an acceptable level of protection to users.

The turf industry has in general accepted a Gmax value of 200 as the maximum acceptable reading for an older synthetic field. New fields, however, should have much lower readings. Typical acceptable values are in the 90-150 range. These Gmax ratings are comparable to those obtained from good quality natural turf, and they allow for gradual hardening of the field over time.

Hardness testing performed immediately after field installation does not just provide a performance indicator. It also shows that you are

performing due diligence to provide an acceptable playing surface for your athletes. This can be very important in case of an unfortunate accident. Annual or routine maintenance testing after construction provides data for determining warranty compliance and for diagnosing or preventing problems. Proper construction, maintenance, and testing are all essential pieces of the puzzle for providing a safe, high performance field.

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Interestingly, Moore said GreensGroomer sells their synthetic maintenance equipment by the container full to overseas customers.

## FieldTurf's recommendations

Troy Squires, VP Marketing for FieldTurf Tarkett, says his company provides a maintenance manual to all clients, and that by following the maintenance procedures outlined in that manual, their fields will be kept in optimum condition and playing characteristics will be maintained longer. Squires says there are two key areas when it comes to maintenance: litter removal and fill displacement.

FieldTurf leaves an estate sweeper with each field sold, which is designed for litter removal, e.g., peanut shells, paper, confetti etc. This kind of sweeping activity should be done on an "as needed" basis, but generally once a week during heavy use.

FieldTurf has a very heavy fill of sand and rubber that is unlikely to float, even in heavy rain, says Squires, but routine grooming of the field will assure that the infill is uniformly distributed at all times over the entire field surface. Intensive and repetitive use of certain areas of the field such as the kicking action of the players may cause the infill material to be displaced. ■