clay by preventing compaction and maintaining appropriate moisture levels. Therefore, as the percentage of clay increases in a mix so does the amount of material required. For higher clay content mixes (60%+) we recommend 1.5 tons (60 bags) per 1,000 square feet incorporated into the top 4 inches of the infield mix or 15 tons for a high school, college or professional field with grass around the mound. If the infield is completely skinned, double the amount is recommended.

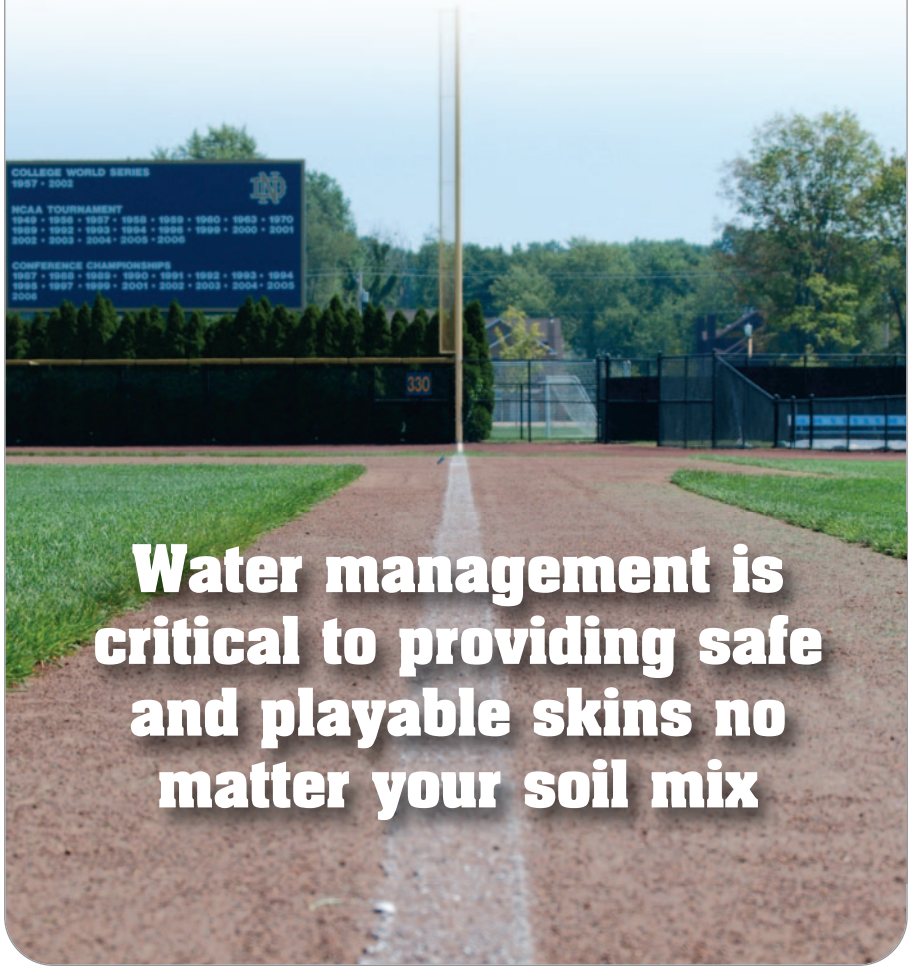
Incorporating 1 to 1½ tons per 1,000 square feet into the top 4 inches of the skinned area is identified as "full rate" or "complete renovation."

Thanks to Profile Products for this information. Turface is their best known product. www.profileproducts.com

The basics of infield care

To create an ideal infield skinned area, you must have a good knowledge of the following:

• Infield mixes vary from region to region. The published ASTM standards include an ideal range of what a good infield mix should be and place infield soils into certain criteria as closely as possible. Before building or renovating an infield area, you must conduct a textural analysis to determine the amount of Sand/Silt/Clay in both existing and potentially new materials, along with particle sizing, to make sure that they will bond together and create an ideal infield. You will determine if the infield mix is appropriate for your specific field. Dark red color has long been the standard for ball fields, but do not allow color only to be



Water management is critical to providing safe and playable skins no matter your soil mix

Silt necessary ingredient for infield skin

By Grant McKnight

The ideal ratios of sand, silt and clay in your mix can put you on the path to fewer rainouts, lower maintenance costs and a better playing field. There are many infield mix suppliers across the nation and most sell mixes containing a two-to-one ratio of sand to clay. Among the higher profile infield mixes, the inclusion of silt is found at levels below the clay content.

When Natural Sand Company entered the ball field market with DuraEdge infield mix, I was told a number of times that the ideal mix contains no silt. With my background in construction materials and mining, I found this concept to be very peculiar. All soil is composed of sand, silt and clay. Without silt, there is nothing to bind the larger sand particles to the smaller clay particles. A mix with 3-5 percent more clay than silt virtually eliminates "chunk-outs," increases the amount of moisture the dirt can absorb and provides firm footing in what is normally unplayable conditions.

In light of the fact that many infield mixes contain little or no silt, we created FieldSaver to amend fields lacking the correct ratio of sand, clay and silt. Through this program, "chunking-out" is no longer an issue for our clients.

Natural Sand Company recently used this program with Mike Boekholder of the Philadelphia Phillies and Bill Deacon of the New York Mets to help them increase their fields' playability. In both cases, the infields were "chunking-out" consistently during games no matter how much water was applied to the surface. We added FieldSaver in an effort to balance the silt and clay ratio in each infield. The results of correcting the infield mix composition were outstanding. Nowhere was this more apparent than in game five of the 2008 World Series in Philadelphia. After a run was scored and the game was subsequently halted, the conditioners on the surface were removed and Mike was surprised to see a relatively uncompromised clay surface.

Grant McKnight is the owner of Natural Sand Company, www.naturalsand.com. ■