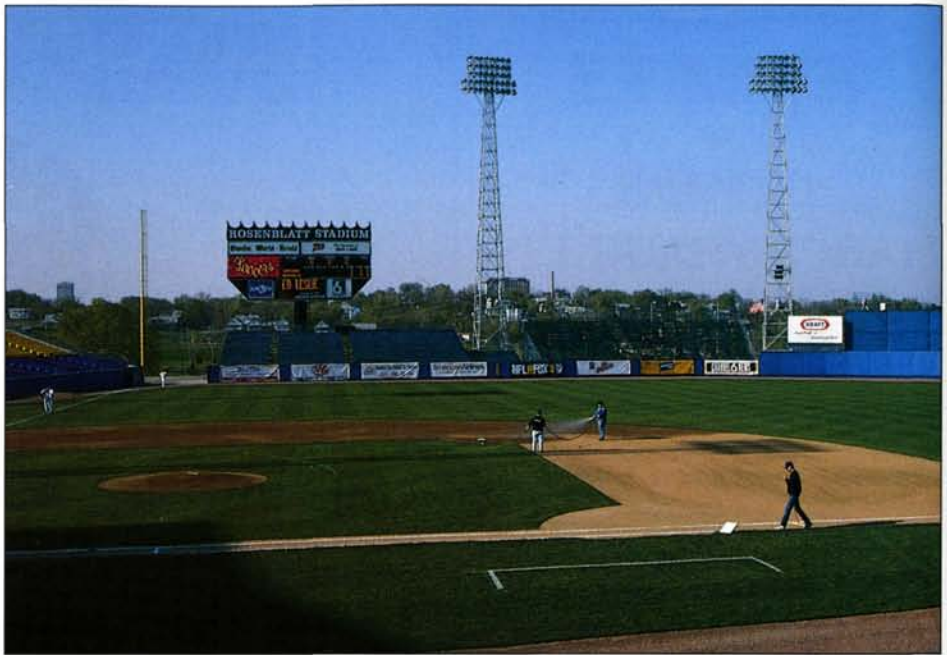




*You and your crews
are the third team
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Preparing Skinned Infields, Basepaths, Pitcher's Mounds and Batter's Boxes

By Jesse Cuevas

Infields are the cause of more groundskeepers' nightmares than any other aspect of baseball-field development and maintenance. Get two or three of us together and the topic is sure to be discussed.

With a full contingent of managers, coaches and players on each team, you're sure to be off the mark in the eyes of at least some of them. And there is no middle ground; you're either doing a terrific job or a lousy one. If a player or team has a great day, you're great, too. If a player has a bad day, and the team loses — well, it has to be your fault.

At Omaha's Johnny Rosenblatt Stadium — home of the AAA Royal's baseball team and host site of the NCAA College World Series — we've experimented with many different mixes for the infield and basepaths. We've settled on a base of native material, a light clay-loam, for 50 percent of the mix. After tackling this "discovery" process, I suggest the groundskeeper develop basic specifications first, then "shop" potential sources for a workable match. The low cost and ready availability of the material are well

worth the extra effort involved.

The clay-loam base is augmented with 25-percent calcined clay and 25-percent sand. The sand is the same type and grade as the sand used in the root mix for the rest of the field, meeting the old USGA specifications for the sand used in greens construction. Since clay and fine sand are mixed to make bricks, and you sure don't want a brick infield, avoid sand that is too fine. We order pre-mixed material for the rootzone of 85-percent sand and 15-percent Dakota Sedge Peat. The same source provides the straight sand at a cost just slightly above the price level of less compatible sand in the area.

We use the straight clay-loam for the pitcher's mound and batter's box. In rainy situations, we'll apply a bit of calcined clay when the surface is wet, then sweep it off with a broom when the area dries.

We work the mound and home plate after every use or tackle them first as game preparations begin for the next day. We work the soil, pack it down and apply a good soaking of water. The amount of water must be adjusted according to weather conditions. We'll water two

or three more times before the game, so each application has to be judged according to current conditions, and what they probably will be later. If the day is cloudy and humid, less water is needed. If a hot, windy day makes it hard to keep the areas moist, we tarp them to retain an adequate moisture level. The mound and batter's box should be firm, with just a hint of moisture, at game time. The trick is to let them evaporate into the condition you want to develop the "right" degree of firmness.

We've installed numerous basepath "test plots" behind the stadium using various additives and different mix proportions to find out what works best for us under our conditions. Keys to success are the type of sand selected, the amount of sand used and how the mixing is handled.

We strive for a firm and slightly moist base with a spike-depth (approximately 1/4 inch) of loose, dry covering

These photos were taken after batting practice and show final pre-game infield preparation. Jesse Cuevas is wearing a jacket and hosing down the infield.

on top. To determine if we've met that goal, we check the base layer after the game. If the player's spikes have just entered the base surface and come out cleanly, we hit the mark. If there were only spike scratches on the base surface, it was too hard. If the spikes broke the base surface, but pulled out clumps or chunks of the mix, it was too wet.

We check the relative-humidity and dew-point readings several times during the day, anticipating that for day games those readings may drop, while for evening games they'll generally rise.

We split the game in half, shooting for ideal conditions for the first half of play. We'll have the opportunity to apply a light layer of calcined clay if the skinned surfaces are too wet going into the second half of play. If the surfaces are too hard, we can loosen them up a bit with the proper drag. The surface needs to remain smooth, not choppy. If conditions keep fluctuating, we're more inclined to lean a bit to the hard side, to at least give the players an honest bounce for each play.

We use a nail drag to turn the infield over each day. Basically, we'll tear up as much of the surface as we want, approximately a spike-depth. Select the type of drag and the amount of weight on it according to what you want to accomplish. For example, we have split 2-by-12 boards within a 2-by-4 frame with 60 D nails placed in three rows on each board. Another drag has a similar setup, but uses fewer nails and has a wider space between each nail. To turn over more

material, use a drag with more nails. To tear up a deeper swath, use a heavier drag. We use a small pull-behind roller to firm the basepath if it's too loose.

After tearing up the basepath, we smooth it with a mat drag. Our arsenal here includes 2-by-12s, double-stacked like dominoes to eliminate clumps; a section of chain-link fence; a section of chain-link fence with nails; a cocoa mat with nails; and a smaller, finishing cocoa mat.

We mark the field before batting practice, since none of our crew members appreciate performing that task for a packed stadium of spectators. Following batting practice, we use a push broom to smooth over any lines and re-mark any damaged areas. We always re-mark the batter's box. Then we use a small cocoa-mat drag to finish the basepaths.

We turn over the entire skinned infield area with a tiller two or three times a year. The individual components of the infield mix tend to separate over time. During the tilling process, or when constructing a new field, we top-load the sand and soil amendments in the top 2 inches of the field. For example, if your infield mix depth is 6 inches when you're starting from scratch, retain one half of the soil amendment and sand for the top 2 inches of the field. This provides that extra edge of drainage that can pull you through two or three innings in a rain.

Mixing the various components is a seat-of-the-pants effort. Divide the soil

amendments equally for each side of the infield. If you're adding two tons of material, packaged in 50-pound bags, lay 40 bags — spaced as evenly as possible — on one half of the field; the other 40 bags on the other. Space 20 bags along the line from second base to third base; 20 bags from third base to home. Space 20 bags along the line from first base to second base; 20 bags from first base to home. Open the bags in place and spread them evenly across the top of the skinned surface. Then work the material in thoroughly.

Adding the sand a little at a time, then mixing it in, is better than adding the sand all at once. It's easier to add a little more than it is to pull some back out. It could take two to three days to get the proportions you want.

Use a trailer you're comfortable with, or a topdresser at a low setting, to spread the sand. Use one load for each half of the field to balance the portions. Mix in the sand. Then follow up with your standard pre-game preparations. Check the results. Talk with the players and coaches. Add more sand, or adjust your finishing process, until you hit the consistency you want. Adding sand is like adding salt — do it "to taste." The sand is the final touch that brings the infield together.

Lip prevention is another aspect of skinned-area care. Use a push broom or stream of water from the hose to wash any stray infield material from the edge of the grass. Daily attention in this area will keep a clean division between the turfed and skinned areas and prevent "bad hops."

You'll spend lots of time on the infield, because the players do. It can be the most grueling part of your maintenance routine. You'll be out there when it's hot and humid, gathering your own layer of infield mix. And you'll be out there when it's cold and rainy, getting your feet wet and your hands icy.

But baseball is the only game of major sports where someone outside the game has a huge impact on the game. You and your crews are the third team out there — and how you do your job dictates how the game is played. □

Jesse Cuevas is the stadium superintendent of Johnny Rosenblatt Stadium, Omaha, NE, and a past board member of the national Sports Turf Managers Association.

