Creating safe, playable infield surfaces

BY RENE ASPRION

Groundkeeping is an art and groundskeepers around the world take different approaches to building and maintaining baseball or softball infields. However, the overall goal should be the same: To create a safe, playable surface day and night, rain or shine.

There are two basic ways to topdress infields, also known as the skinned area, the playing surface or the dirt portion, including the pitching mound, baselines and homeplate. The first method is to simply topdress the playing surface with a quality infield conditioner by creating a thin top layer that acts as a blanket over the dirt. The second is to work an infield conditioner into the skinned area, followed by a topdressing application. This procedure is usually recommended for poorly graded or slow-draining infields and hard, over-compact ed playing surfaces. The work requires more time and is typically performed during the off-season.

To properly topdress an infield using either of these methods, refer to the following application instructions and remember that these techniques may not fit every situation. It's best to work with an experienced, professional groundskeeper for the best application techniques for your particular field(s).

First steps in topdressing

The first step in planning any infield work is to know your infield(s). A regulation baseball (Major/Minor League, Collegiate, High School) infield, with an infield arc of 95 feet will have approximately 11,500 square feet of skinned area, which includes the baselines, mound, and homeplate. A regulation softball (Professional, Collegiate, High School) field with a 60-foot arc will have approximately 8,300 square feet of skinned area. Once you know how much surface you're working, follow these basic instructions:

1. Do preliminary work on the infield. Lightly water the skinned area and allow some drying time so the water will soak into the dirt. Next, nail drag the infield arc (no deeper than 1/2 inch) to provide some pre-leveling and give the skinned surface a good blend when the conditioner is added.
2. Apply a thin layer of infield conditioner. Use approximately 1/4 inch to 1/2 inch of conditioner and place on all infield dirt areas, including baselines, mound, and home plate. How you apply the material is determined by how you purchased it (either bags or bulk — bulk is usually cheaper and saves money over time), as well as the equipment and manpower available. The most common application methods include: a topdressing machine, a front-end loader, wheelbarrows, and by hand from bags.
3. Level the conditioner. Use a flat board (a nail drag turned over on its flat side), a screen drag with a leveling bar, or with good old-fashioned rakes.
4. Finish drag the infield. Use a screen or mat drag, and then lightly water again. The infield should now be ready for safe play.

Pre-Season infield renovation

For poorly graded or slow-draining infields and hard, over-compacted playing surfaces, use the following application techniques to renovate your infield(s) before a season begins:

1. Prepare the field. Lightly water the skinned area and allow the water to soak into the dirt.
2. Till infield conditioner into the infield arc. Some groundskeepers will nail drag or roto-till the infield before placing the conditioner to re-mix or re-level the infield mix (the dirt portion of the infield that is made up of a combination of sand, silt, and clay). Be advised that tilling the infield too deep, or overworking it with a nail drag, makes it more difficult to apply the conditioner because the skinned area will be too loose. (Note: An overworked infield, or one that is tilled too deep, will take more time and effort to make level and compact.)
3. Apply 1/4 inch to 1 inch of infield conditioner. Cover all skinned areas as evenly as possible, using the topdressing procedure described earlier. The depth of conditioner will depend on how deep you roto-till or nail drag the infield. For example, if the manufacturer's instructions recommend an application of 1/4 inch of conditioner per 1 inch of tilled infield dirt, and you roto-till 2 inches deep, apply 1/2 inch of conditioner.
4. Roto-till or nail drag the infield. This helps incorporate the conditioner with the existing infield mix.
5. Level the conditioner. Use a box blade, a flat board (a nail drag turned over on its flat side), or good leveling rakes. After leveling, your field should have a fairly loose surface that needs to be compacted and leveled again.
6. Compact and level the infield to your players' preferences. This can be achieved using a small roller or a compacting/leveling machine. Some coaches and players prefer a fast, firm surface, while others prefer a slower, looser playing surface. Ideally, your players should be able to play on the infield without slipping or cutting, thus creating ruts, or sliding and creating deep holes. The real test, of course, is when a ball is thrown or hit. The infield should provide a true and even hop or roll. Bad hops are everybody's nightmare.
7. Apply a topdressing application. Follow the steps outlined for the topdressing procedure.

In summary, use good, clean, quality materials for both your infield mix and infield conditioner. Don't be afraid to experiment and make mistakes, and ask questions along the way. Remember groundkeeping is an art, not a science. Play ball on a safe infield!

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