Infield Maintenance: Focus on Skinned Areas





To repair holes, add premoistened packing clay and use a hand-held tamping device to work the packing material firmly into place.

A nail drag should be used a minimum of once a week, more frequently if possible. Photos courtesy: Aimcor.

By Ed Miller

ports field exist for athletes. The top priority of sports turf professionals is to provide a safe playing field. Beyond that, a field in excellent condition not only "looks sharp," but also gives athletes the best chance to perform at their highest levels.

Player safety is an integral part of all phases of field construction and maintenance. Every step that improves the overall quality of the field also strengthens its playability — and safety.

Initial field construction and annual renovation aim to create fields that will resist compaction, drain effectively, be free of soggy or slippery spots, and retain soft, playable surfaces. Whether working with native soils or specially formulated field mixes, the addition of a conditioning agent that has the ability to absorb and gradually release moisture makes these more attainable. Such fields are less likely to have rainouts or play action affected by weather-related factors. Athletes such have to concentrate on the game, not on field conditions.

Explore All Avenues

With every field, a high percentage of play is centered on specific areas. For baseball fields, the most highly stressed areas are the skinned portions of the infield. Establishing a daily maintenance routine and sticking to it will make significant improvement in the condition of a problem field and keep a superior field in top shape.

Enlist help from others who have a vital interest in the field. Discuss field maintenance needs with coaches, and perhaps work with them to assign players certain daily areas of responsibility. Draw on parents and booster clubs to participate physically or financially or both.

Emphasize the importance of keeping the field in the same shape for practices as games. Inconsistencies can lead to errors and cause the team to lose the "home field advantage." Maintenance should be performed immediately following use — the field left in good conditions for the next day's play.

A daily field inspection is the single most important step a sports turf manager can perform, both for the safety of athletes and field playability. As groundskeepers slowly walk athletic fields, they can spot potential hazards such as large stones in the skinned areas of base paths, unretracted sprinkler heads, holes or animal burrows, damaged fencing, or loose sprinkler heads. Unfortunately, it's also necessary to keep a sharp look out for hidden hazards that may be placed by vandals to cause hazards.

Following any action required to remove hazards discovered during inspection, actual maintenance of skinned areas can begin.

Techniques and Tips

Pitcher's mounds take a lot of abuse during games. After the game, sweep and remove loose material from worn areas of the mound. Loose materials should not be swept into the turf as it will only lead to future repair problems. A channel surrounding the edge of the pitcher's mound will prevent runoff on the infield mix into the surrounding turf. Check this daily and use a spade to repair breaks in the channel if necessary.

With the point of a pick, loosen the material in the worn areas in front of the rubber. Water the loosened areas lightly so packing material will bond more easily. Add premoistened packing clay and use a hand-held tamping device to work the packing material firmly into place. Start in the patched area, tamping outward gradually to maintain an even surface. Keeping the mound area just in front of the rubber approximately 1/2-inch below the level of the rubber will discourage "digging" by the pitcher. Next, tackle any needed repairs in the landing area.

Once the areas are firm, lightly moisten them one more time. Using a rake, gently pull dry material over the wet spots. Lightly rake the entire mound area and roll it. After rolling, moisten. If possible, cover the pitcher's mound with a tarp to keep it moist and firm, regardless of weather conditions.

The batter's box and catcher's box also take heavy abuse. It is important that these areas remain firm and level. Repair holes using the same series of steps as those used to repair worn areas in the pitcher's mound. Check the entire batter's box to ensure a firm and level surface after repairs and rolling have been completed and the area has been moistened. Then tarp the area if possible. Watering keeps the field soft, prevents wind erosion, and keeps the clay mix from drying and breaking down. A moist infield also is more playable and easier to maintain. A calcined clay, such as Turface Regular, incorporated into the infield helps maintain the correct moisture level.

Use supplemental watering based on weather conditions. When watering of the skinned areas is needed, simulate a natural rain shower as closely as possible. Hold the nozzle at an upward angle to provide a gentle spray pattern. Plan watering according to game time. Often, morning watering can allow a partial dry down, leaving the field just damp enough for the pregame nail drag and mat drag procedures. Remember, the higher the degree of moisture that remains by game time, the slower the field.

Daily dragging keeps the skinned surface loose, level and consistent. Although there are a number of ways to drag a skinned area, there are some keys rules to follow. Dragging should be done slowly. Going too fast can cause an uneven surface and the loss of some material. Slowly drag the perimeter of the skinned area before starting the dragging pattern. Leave at least a 6-inch buffer between the drag and the edge of the turf to prevent buildup of "lip" material along the turf edge. Use a rake to scarify the 6-inch area missed by the drag.

When dragging, alternate the daily starting and stopping points to prevent developing high spots that could trap water on the field. Use a rake to spread and even out the small pile of material that accumulates at the daily stopping point.

A nail drag should be used a minimum of once a week, more frequently if possible. The field should be damp, so lightly moisten the skinned area with a hose if necessary. The nail drag extends 1/4to 1/2-inch into the surface, relieving surface compaction and ensuring a loose, friable surface that is easier to maintain. The weight of the drag alone should be adequate for normal use; however, additional top weight can be added for use in badly compacted areas. The nail drag can also be used to incorporate small amounts of calcined clay to counteract excess moisture or compaction.

Use a mat drag to provide a smooth playing surface following the nail drag, *continued on page 16*



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as well as on a daily basis. A rigid mat drag with a leveling bar on the front is most effective — it fills in low spots and ensures a level field. Flexible drags have a tendency to dip into low areas, making field leveling more difficult.

A landscape rake can be used to scarify the base paths, achieving the same benefit as dragging. Rake lengthwise, rather than side-to-side, to avoid pushing loose materials into the turf.

Keep the base paths firms to ensure good footing for players. To prevent slippery conditions, calcined clay over each base path and work it in with a landscape rake. This also helps cut down on dust and "blow off."

Following raking or mat dragging, prevent lip buildup by using a stream of water from a hose, a leaf blower, rake or stiff-bristled broom to move all loose material at the edges of the turf back onto the skinned surface. Rake and remove any grass that is brushed onto the skinned area.

Edge the infield turf to preserve accurate base lines and give the field a finished look. Use pegs and string to ensure straight lines. Run the string from a peg placed just behind home plat to peg placed to the outfield side of first base. Measure 36 inches from the string toward the infield grass. Place pegs at each end of the infield grass and move the string over to these pegs. The string line now represents the accurate placement of the infield grass line. Use a spade, sod cutter or power edger to cut along the string line. Repeat the same procedure for the remaining base lines.

If a lip as occurred, use a sod cutter to remove all turf cover the raised area. Set aside and protect the sod. Then, slice away all buildup materials with a sharp shovel until the surface area is on an even plane with the with the surrounding infield and outfield surfaces. Level and scarify the surface and return the sod to its original position. Topdress any damaged areas or exposed soil, leveling the topdressing material with a rake. Water the sod lightly as needed each day to prevent it from drying out before re-rooting is complete. Once the roots have knit, water more deeply, but less frequently, until the sod is well-established.

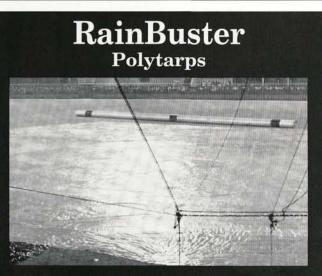
Even the best maintenance programs will be thrown an occasional curve by Mother Nature. When excessive rainfall saturates the soil, pour Turface Quick Dry into puddles, or spread it over spots of standing water. Once the water is absorbed, rake the material lightly into the soil. For damp spots without standing water, apply a thin coating of the quick drying agent to the area and lightly work it in with a rake or push broom. The material will remain a part of the infield, providing long-term control for trouble spots.

Finally, keep good records of all field maintenance. These provide a building block for future improvements and proof that steps have been taken to ensure play safety.

The daily half-hour of routine infield skinned area maintenance might just your field into some young athlete's path to the majors. \Box

Editor's note: Ed Miller is former chief groundskeeper for the New York Yankees training facilities. He is currently a consultant for Turface Sports Field Conditioners, Deerfield, IL.





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