Mid-Season Maintenance of Spring Training Facilities

by Steve and Suz Trusty

Spring training isn't the World Series, but for many players it's every bit as important. This is the starting point: the doorway through which you must pass on the road to the Big Leagues.

Spring training gives seasoned veteran players the opportunity to work out kinks and hone their skills. It gives newcomers an opportunity to test their talents and try to earn a slot in the line-up. It gives "wannabes" a chance to showcase their best stuff and try to prove they can make it in professional baseball.

For team managers, spring training is a time of promise. It's the first chalk stroke on the clean slate of a new season. Pressure is intense. Spring training is the proving ground. It's the point where all the planning, plotting and negotiating should begin to pay off in the form of a winning team.

All these hopes and dreams rely heavily on the polished diamond and patch of perfect turf that make up the spring training baseball field.

Unlisted players

Spring training is just as much a proving ground for the sports turf manager as it is for the players and team managers. With careers in the balance, field conditions had better be near perfect. Initial field preparation begins long before that first "play ball" of the spring training season, and the daily maintenance requirements are intensive, to say the least.

Spring training is all about playing ball. There's tremendous pressure to get in all the scheduled games, even when the entire season is plagued by an opposing force with the power of El Niño.

The weather this season has brought special challenges to sports grooming the basepaths, painting and lining, and mowing the turf.

In view of all that, this year's mid-season maintenance may be more important than ever.

The line up

Baseball is a game of inches. Part of mid-season maintenance is re-checking the accuracy of the field layout measurements. Using the apex of home plate as the reference point, all the distances must be checked: to the mound, bases, foul lines, outfield fences, and so on.

Base settings must be verified prior to reworking the basepaths. Any adjustments to the on-field mound or the mounds in the bullpens must be made during mound renovation. Finally, fresh lines wrap up these maintenance procedures.

Mound renovation and rebuilding

For mounds, consistency is the key maintenance issue. Pitchers need to warm up and pitch the game from surfaces that are uniform. Any variation in the underlying firmness or the top surface of the mound will affect the throw and the pitcher's consistency.

Besides the key game field, spring training sites generally have multiple practice fields that are used almost...
constantly. For each field, the infield mound and the bullpen mounds must not only meet regulations for height and layout, but must be identical in consistency.

Ideally, this consistency extends to all mounds on all fields used by a team. Daily use by different pitchers for different lengths of time makes it hard enough to retain this consistency. Factor in slight variations in sun and shade patterns, temperature, and precipitation within the micro-climates of each field, and the job becomes even harder.

Individual sports turf managers develop their own “ideal” mound material based on the preferences of players, coaches, the manager, and even the team owner in some cases. Managers must also consider the physical characteristics of the field or fields, climate and environmental factors, and available materials.

The material needs to retain sufficient moisture to remain consistent without becoming dry, slick or too moist, even in a doubleheader. It needs to resist drying and cracking, yet provide the firm surface necessary for good footing.

After selecting the preferred mound material, the sports turf manager must determine the precise moisture level within the material for mound building, renovation and repair. The moisture level will vary slightly to accommodate such weather conditions as heat and humidity levels.

At each specific moisture level, the sports turf manager must also determine the precise point of compaction that will allow each new layer to stick to and bond with previous layers. The mound must be one solid structure, but must retain the desired level of firmness.

Depending on weather conditions, the amount of play, and the window of workable time available, mid-season maintenance of the mound may range from a slightly more intense form of daily mound preparation to a stripping and reworking of the upper level of the mound.

Wear is greatest on the flat top plateau. Problem areas often form around the pitching rubber, on the first base and homeplate sides, and along the front slope that faces home plate. The edges where the mound meets the turf may also need attention. Wear in this area is greatest on the edge facing homeplate.

Minimal mid-season maintenance will include checking the level and seating of the pitching rubber. Any problems with slope will require removing the rubber and reworking the mound to whatever level is necessary to correct the problem.

If time and weather permit, the entire plateau area may be reworked to ensure proper bonding and a flat, level surface. Generally, the upper surface of the front slope will also require reworking.

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Once the materials have been removed from areas that need to be reworked, repair procedures are the same as those used in regular daily maintenance: sweep out any loose mound material, fill in a small amount of pre-moistened mound material, and pack it in firmly. On the plateau, use a level or longer "level board" to ensure a flat, level surface. With any re-working, frequent measuring will be needed to maintain proper dimensions, height and degree of slope.

**Batter's box repair**

Mid-season maintenance generally includes reworking the batter's box area. If time and weather factors permit, homeplate can be removed and reset following the same general repair practices used on the mounds. If reworking is not possible, the sports turf manager must at least ensure that homeplate is properly placed, well-seated and level with the surrounding clay material.

**Consistency is key to mound maintenance. Pitchers need to warm up and pitch the game from surfaces that are uniform.**

**Basepath care and lip removal**

Lips develop when infield clay builds up in the turf bordering skinned areas. To avoid ball "hops" and protect player safety, there should be no difference in feel when stepping into the transition between the skinned area and the turf. Ideally, regular daily maintenance with a rake or broom along the inner and outer edges of the basepath will have minimized lip buildup.

If lips are present, pressurized air from a blower or a high-pressure stream of water from a hose can be used all along the baselines. Follow with the normal daily broom or rake treatment.

Most sports turf managers check the baseline during mid-season maintenance. Run a string line first along one side of the basepath, and repeat along the other. Cut away any turf that is growing into the basepath with a hand edger, and that spot is repaired.

Mid-season maintenance generally requires a deep working of the skinned material in the basepath. After working up the surface with a scarifying drag, additional material can be added if neces-

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sary. Again, each sports turf manager has a preferred material for this area. Adjustments in the mix may be made during this reworking to compensate for unusual weather conditions.

After scarifying, use a leveling drag to correct any high or low spots and level the surface. General daily maintenance procedures provide the finishing touches for a firm, lower surface and a light, looser top layer that will allow players' spikes to get a good hold without pulling out chunks of clay.

**In the turf**

Turf bordering the baselines should be free of skinned area material following lip repair. Any mound material that has worked its way into the surrounding infield turf should be cleared away with a rake or broom.

Wear and compaction are greatest in the area between the mound and homeplate. Again, time and weather conditions dictate which procedures can be used to reduce the stress.

Bullpen mounds must not only meet regulations for height and layout, but must be identical in consistency to the infield mound.

*Courtesy: Trusty & Assoc.*

Maintenance in this specific area may include spike aeration and topdressing with a soil conditioner, deep tine aeration, or water injection for compaction relief. Core aeration is generally useful only if the compaction is severe enough to warrant the surface disruption the procedure causes.

In normal conditions, turf in other areas of the field shows minimal wear. Repairs should be made to any high or low spots within the turf areas. Follow normal in-season schedules for fertilization, irrigation and mowing.

Wrap up mid-season maintenance with painting and lining, and the polished diamond is once again ready for play.

Steve and Suz Trusty are partners in Trusty & Associates based in Council Bluffs, Iowa. Steve is executive director of the Sports Turf Managers Association.

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