

▲ **Field #1:** Sherri Parker Lee Stadium on the campus of the University of Tennessee, Knoxville. Photo courtesy of Darren Seybold. ▲ **Field #2:** Husky Softball Stadium on the campus of the University of Washington in Seattle. Photo courtesy of Tyler Clay.

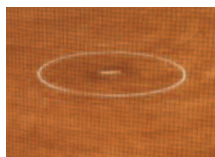
Advice on maintaining softball infield skins

SportsTurf asked the following turf managers who maintain softball diamonds a few questions on how they make their skins better.

- Tyler Clay, University of Washington
- Herb Combs, CSFM, Athletic Field Supervisor, Intercollegiate Athletics, The Pennsylvania State University
- Jason DeMink, CSFM, University of Michigan
- Eric Harshman, Assistant Sports Turf Manager, University of Kentucky
- Tracy Schneweis, Sports Turf Manager, America Softball Association Hall of Fame Complex
- Darren Seybold, Director of Athletic Surfaces, University of Tennessee

What combination of clay products, amendments, moisture and maintenance routine do you use to keep the pitcher's circle in top condition?

Seybold: The infield consists of a high density red clay material that helps us produce a firm but not hard surface that can absorb a lot of water but not lose its ability to produce a quality footing, as well as smooth ball/surface interaction. Our team in the past has been built around the concept of speed and therefore the coaching staff wanted a “hard” surface. This material allows the agronomy staff to have enough water in the profile to provide the infielders with a tremendous fielding surface as well as accommodating the teams need to have a fast surface for their hitters to slap hit and steal bases.



Leaving your finished clay work a fraction of an inch below the rubber will promote less digging, and limit the opportunity for the surrounding surfaces to build-up. — Tyler Clay

DeMink: We patch daily and apply conditioner as needed. The only amendment we use is a natural clay enhanced with polymer.

Combs: We use mound clay for our pitching mound and cover it with a thin layer of amendment. The mound is repaired daily and watered as needed. To help maintain the overall quality and moisture of the mound we tarp when it is not in use.

Harshman: I water the infield (pitchers circle included) at least three times a day, if not more or less depending on weather conditions. I try to water the infield first thing in the morning. The first watering of the day consists of a heavy soaking, making sure the entire playing surface is well saturated evenly throughout. I then follow up with a water cycle before or shortly after lunch, cutting back on the amount of water from the first cycle of the day but still making sure to water evenly throughout the entire playing surface. The final water cycle is done right before practice or before a game. This cycle is done quickly, applying the least amount of water for the day. If done correctly the playing surface will keep a consistent moisture level for the entire practice/game.

Our infield mix consists of a high density red clay. All maintenance repairs to the infield (pitching lane, batters box etc.) are done with this same clay.

Our infield conditioner helps in maintaining proper and consistent moisture management. Like most infield conditioners this product breaks down over time and I apply fresh, new material when necessary and try to remove whenever possible.

There is no difference in my maintenance practices for the pitcher's circle. All maintenance practices for my clay surface are treated the same way for 100% consistency.

Clay: The upkeep of our clay surfaces (pitcher's circle, home plate and bullpens) consists of daily maintenance and repair of any holes which have resulted from practice or play. Our primary amendment used is a finer granule when compared to a basic



3



4



5

▲ **Field #3:** American Softball Association's Hall of Fame Stadium, Oklahoma City. *Photo courtesy of Tracy Schneweis.* ▲ **Field #4:** Beard Field at Nittany Lion Softball Park, University Park, PA. *Photo courtesy of Paul Curtis.* ▲ **Field #5:** Wilpon Softball Complex: Alumni Field on the campus of the University of Michigan. *Photo courtesy of Jason DeMink.*

amendment. We have found that the coverage and resiliency of the finer granule product is much better than the other products, ultimately countering the additional cost of that product.

Our maintenance routine is the most important component of keeping our clay surfaces safe, firm and resilient, especially with the prevalence of wet conditions in the Pacific Northwest Region. Our clay routine is as follows:

Scarify "action" area; going several directions to break down any high points and loose material.

Pull/brush back using a small broom, any loose material in and surrounding the said hole(s).

Once surface is "bare," we use a small hand sprayer (pump action) to wet the "bare" area.

You will not always need to wet the bare area; there is no need to saturate the surface.

Add the clay product to the hole first, avoid tapering off into the less disrupted and bare surfaces, avoiding this will help prevent the slow build up which commonly occurs. The deeper the hole, the more important it is to add the clay in layers to promote a solid bond and rid the clay of any pockets which may have formed. While layering, a quick mist of water before adding the next layer will promote a solid bond.

When tamping the clay material, use a firm downward action to initially pack the clay into the hole. Inspect layer tamped and add material as necessary. Regardless, finish tamp the surface, overlapping each tamp to produce a smooth surface.

It is important to not build your clay up to "flush" with the pitching rubber or home plate because when adding your finishing amendments such as Turface, you will be adding a layer which will bring the soil above the rubber. Leaving your finished clay work a fraction of an inch below the rubber will promote less digging, and limit the opportunity for the surrounding surfaces to build-up.

Once the clay has been thoroughly tamped, based on observed moisture in the clay, it may be necessary to apply a light coat of water before scarifying over the work to knock down any high spots, loose material, etc... will aide in the bonding of the top layer.

Using a rake, pull any loose material and debris to the center of the circle, dragging it over the clay work you have just completed, the dust and finer particles will work well as a "mortar" to fill any small cracks and openings in the packed clay.

Remove the debris and material collected.

Finish groom/rake the circle.

Based on weather conditions and soil moisture, water as needed and tarp once moisture levels appear adequate.

Tarpping is the other critical element of clay maintenance. This very tedious process will help surface hold-up better leading to less disruption and quicker maintenance turnaround.

Schneweis: Because I was new to the position (I started in April of 2013) and to the area, this past playing season was more of an experiment. Coming from a baseball background, I was also new to softball. We tried several types of mound clays and conditioners to see

Southern Athletic Fields
DIRT
You Gotta Love it!

- ◆ Infield Mixes (naturally blended/custom blends)
- ◆ Mar Mound and Plate Clay
- ◆ Mulemix Field Conditioners
- ◆ SAF Warning Track
- ◆ SAF Coat Infield Topdressing
- ◆ Field Accessories (rakes, tamps, bases, drags)

Call **800.837.8062**
www.safdirt.com
Follow @DIRTGottaLoveIt
Southern Athletic Fields on

what one(s) worked best for our fields. I wanted to test them all throughout the spring and summer and see which clay held up the best in the conditions we have here in Oklahoma. I also wanted to see which conditioners worked the best for the different types of clay we were trying.

Most of our events are youth tournaments that start on Friday and end on Sunday. During these events we re-pack all the clay on Monday. We have four fields here and all four receive the same attention on Monday. We don't do much, if anything to the pitching circles again until Thursday. On Thursday morning, we start managing the moisture again and adding water/conditioners as necessary. Friday morning we check all the areas to make sure they are safe and ready for the games, which typically start around 10. Friday night after the last game we re-pack all the clay and have them ready for Saturday morning. Saturday's games usually start at 8:30, so we try and get everything done the night before. After the last game on Saturday, we repack the circles again and have them ready for Sunday's games, which usually start at 8:30. If during the days any of the circles become unsafe with large holes, we will repack in between games. During the College World Series and the World Cup, we re-pack the circle between every game.

How do you keep the rest of the infield skin safe, firm and resilient?

Schneweis: Moisture control is the most important, and challenging, part of maintaining our fields. On a typical Saturday, when we are hosting a tournament, the games run from 8:30 am until 11:00 pm, or later. Games usually last an hour and a half and we have 10 minutes, at the most, to do all of our work: drag, chalk lines/batters boxes, etc. So trying to keep water on them in July in Oklahoma when it's 100 degrees is nearly impossible. We have irrigation heads behind the pitching circles that do a pretty good job of getting some water out, but usually we don't have enough time to do more than just settle the dust down. We try and keep a layer of conditioner (about 1/2 inch) on top of the fields to help hold some moisture in.

Obviously, weather conditions determine what we can, or need, to do for moisture. If there is no rain forecasted, we will start putting water on the dirt on Wednesday. We soak them all on Wednesday afternoon. We then monitor the fields all day Thursday and add water if necessary. Our goal is to have moisture throughout the profile by the time we leave the complex Thursday night. Friday morning we will check them all and determine if more water needs to be added.

During the day on Thursday, we also try and nail drag and roll the fields. This doesn't always happen; sometimes because of time constraints and sometimes because they don't need it. Rolling the fields with a 1/2-ton roller has allowed us to be able to seal off the top and hold some of the moisture in. It also "tightens" up the dirt, so it doesn't get as chewed up during play.

Combs: We maintain our infield skin daily with your standard infield maintenance equipment to ensure the safest surface possible. We manage our firmness with moisture and rolling the infield skin with a roller. We cover our infield skin with an amendment layer.

DeMink: We nail drag our skin daily; it helps fill in all those cleat marks. We also use a rain groomer on a Workman vehicle to level any high or low spots around first and second bases. If needed, we will roll the infield skin with a 1-ton roller. And we chain drag and use big brooms daily. Also we will broom twice during games to keep playing surface level and safe during games.

Seybold: The amendment that is currently being used helps retain moisture as well as provide a medium to slide and play the game. The surface is nail dragged at 1/8 inch to try to mitigate as many cleat marks as possible and a 1-ton roller is used sporadically during the season to aid in tightening the top quarter inch of material that is disturbed from the barrage of practice and games.

Clay: Our skin surface is evolved into a complex hybrid mix of several products over the past several years. Our last renovation included the addition of 30 yards of 70:30 (clay:sand) mix. This material was tilled into the existing ag-lime and then graded respectively. Moisture and continual maintenance are the two most important factors to keeping our skinned surfaces resilient. The use of amendments allows us to control our moisture levels, as well as keep the field firm and playable through the winter months. Once a low-spot is identified, address the issue as soon as possible and begin adding material to it. Based on soil composition and condition, tilling of the existing surface before, or during addition of material may be required. This will prevent the scope of your off-season renovations, as well as keep your surface safe and playable. It is a good idea to save and store some extra material for the maintenance of your skin surface throughout the playing season.

Following activity, based on the field conditions, spike or nail drag the skin to break down any chunks, a major disruption. If conditions permit, follow spike/nail drag with a matt/chain drag, allowing skin material to move and redistribute itself into low-spots much more efficiently. When dragging is completed, we remove any debris and foreign materials gathered by our drag mat. Once satisfied with the turnover, soak your skin surface to promote any re-bonding. Allow adequate time for material to settle before next activity. Additional fine tuning will be required around bases and one rake width around the surrounding edge of the skin.

Using a vehicle with worn or bald tread tires will act as a roller and allow the compacting of any loose material. To get optimal firmness and bonding, use a 1-ton ride on roller to compact any loose material. Follow the process, Drag-Water-Roll-Repeat. Common spots we check are the lead-off/running lanes by all three bases and all position spots. The most observed traffic areas decrease respectively as you move from first base to third around the infield. Sticking to our maintenance program, as well as avoiding activity when conditions are wet and soft, allow us to maintain a resilient surface with a level grade.

What are your short and long term solutions to lip build-up?

Schneweis: Short term, we blow out the lips every Monday. Some weeks we use a backpack blower, others we use a 1-inch hose and wash them out. Once a month we try and "hard rake" them out. We take

a normal garden rake and go at a 45 degree angle and forcefully rake out the edges. We go back and forth a couple of times, one side to the other. It's amazing how much thatch, conditioner, etc., that we remove by doing this. We then rake the "trash" up into a pile and remove it from the field.

Long term is tough for me to say at this point. I would guess we will just re-sod the lips if they ever become unsafe.

DeMink: Lip prevention is done daily with push brooms, backpack blowers, and leaf rakes. Weekly I like to use a hose to blow it out with water. And, if needed, sod replacement.

Harshman: Short term, after daily practices, or normal usage: I come in and leaf rake all lip/transition areas pulling back material onto the infield that has found its way into the turf. After finishing up with leaf raking I use a backpack blower and get the material that has tried to imbed itself deep into the profile.

Long term: After heavy use: (camps, tournaments and weekend series) I will perform the same practices mentioned in the short term. In addition to that I will blow out all lip/transition areas with a water hose that is hooked up to a quick connect water source.

This process in my general maintenance is a delicate procedure. I make sure that the water pressure isn't full blast causing more harm

than good to the lip/transition areas. If your pressure is too high you have the potential of blowing out large chunks of your infield requiring you to come back in and make the necessary repairs to the clay infield playing surface. I regulate my water pressure making sure I gradually make small circular stokes along the grass edge blowing out all debris and material are free from working itself deep within the profile. By performing these practices I limit the amount of buildup over time that would eventually create an uneven transition between the clay infield and turf areas.

Seybold: The lips are "washed" out on all off days of all loose clay and conditioner that is worked in to the edge of the grass and during practice days or game days a backpack blower is used to remove as much conditioner as possible without damaging the grass to dirt interface on the edges. During the summer a roll of sod from the ring around the back of the skin is removed and replaced with new "fresh" sod to insure a clean edge is ready to go for the season.

Combs: We try and maintain our edges daily by sweeping or raking them after every use to minimize build-up. We edge the grass frequently to try and maintain a crisp edge. Our long-term solutions would be to flush the edges with a hose to try and flush out any infield material, if the edges are really bad we would just resod. ■

The Best Dressed Sports Fields Start Out In Our Hands.



Major League Baseball. National Football League. Major college programs. High School teams. America's leading sports fields use America's best field marking paints and custom stencils. When great teams choose to decorate their fields, they turn to World Class.

WORLD CLASS
athleticsurfaces

We Make The Games Look Better • www.worldclasspaints.com • 1-800-748-9649



Rugged. Consistent. Dependable.

The Best Field Chalker in the Business. **Beacon Streamliner.**

Beacon Streamliners are simply the best dryline field chalkers you can buy.

Our field testing has proven the **Streamliner** delivers the most consistent, solid line while saving chalk and reducing costs. It uses 30-50% less chalk than other chalkers. Use your smart phone to scan this code and **watch it in action!**



BEACON ATHLETICS



800-747-5985 BeaconAthletics.com

FOR FACILITIES . FIELD MAINTENANCE . GAME-PRACTICE EQUIPMENT