Maintaining a synthetic baseball infield

At Elon University the baseball field consists of a synthetic (FieldTurf) infield and a natural, 419 bermudagrass outfield. Our maintenance plan of the synthetic baseball infield is developed around field use and weather. More maintenance is required for higher field use or inclement weather.

The basic daily maintenance includes working on the high-wear areas, including batters boxes, around the pitching mound, around all the bases, and around dugouts and entrances to the fields. For the most part, the work requires just a push broom or backpack blower to move the crumb rubber back into place. The rubber is pushed back to its original location and then water is used to help settle the rubber back into place.

Around the mound area, we push any clay back on the mound. This will also push crumb rubber on the mound. We believe that the crumb rubber is easier to remove from the mound surface than the clay is to remove from the synthetic surface. During certain times of the year we use backpack blowers daily to blow debris off the surface. Fortunately our synthetic infield surface is only about 40,000 square feet so the time for this process is minimal.

Monthly, we drag the field using the FieldTurf drag. The FieldTurf drag has three different tools: a broom, an aerator, and tines. We use the broom and the tine part of the drag the most often. These two parts help to move the infill (rubber and sand) around, as well as stand the plastic fibers back up on the infield.

After we get done brooming the field, we use three 3-foot magnets to roll across the field to pick up any metal debris. Since the crumb rubber is from old tires there are small fragments of metal, about the size of staples, which we have been collecting off the field. We also sanitize the field monthly. To do this, we use a Gator with four nozzle boom that sprays FieldTurf detergent on the field. We then use four Hunter I-90 heads to water the cleaner into the field.

There are two edges of the field that we must maintain: the edge where the synthetic meets the grass and the synthetic around the dirt mound. For the grass edge, we have found that the best method to remove the runners from the edge is hand pull them every 2 weeks throughout the bermudagrass growing season. We will also use a weed eater to edge. This gives a clean look without cutting the synthetic fibers. For the mound we use push brooms and backpack blowers to remove the clay from the synthetic fibers. If the clay builds up too much then we use a hose and shop-vac to remove the clay. This is typically done twice a year, once at the end of the fall and again at the end of the spring.

The biggest thing that we have learned in taking care of the field is to stay on top of the maintenance. If we let the clay to build up, then it becomes harder to remove. If we allow the grass to grow too far into the synthetic then the grass becomes well rooted and is harder to pull out. If we allow debris to collect on the surface then it is tougher to remove them. With the help of the coaches and players we are able to stay on top of the maintenance.

Scott Stevens is sports turf manager for Elon University, Elon, NC.

Cardinal Turf Manager

Cardinal Newman HS, Santa Rosa, CA

Mike Truesdell, president of Cardinal Newman High School, says, “It seems to me, a neophyte, that the separation between the dirt of the mound and the turf of the (TigerTurf) field works well. If dirt is kicked into the field it can be swept back. The rubber beads can be replaced if the reverse happens. “Matt Brown (installer) just completed a major sweeping and disinfecting of the entire surface. I believe that is an annual event. On a quarterly basis our maintenance team pulls a brush device to redistribute the infill. And where it is significantly displaced around the bags and home plate more infill is added,” Truesdell says.

“During our planning stages we went back and forth as to whether the area around home plate should be dirt like the mound. Given our required repairs to the batters’ boxes, and the apparent ease of keeping the mound dirt and field turf infill separated, it might be worth rethinking that decision,” he says.

Matt Brown of Precision Surfacing, Inc., says, “We installed the baseball field at
Marin Catholic High School with the three bases, home plate and the pitcher’s mound all dirt and the rest of the field synthetic turf. Three years later, they had us tear out the dirt except at the mound and install a brown colored synthetic turf at home plate area and all the bases. The dirt infiltrating into the turf was a maintenance headache around the bases.

EASTERN KENTUCKY UNIVERSITY, RICHMOND

“Our infield is all synthetic (Tiger Turf), parts of it are just clay colored,” head baseball coach Jason Stein says. “Our outfield is natural sod.” During the season Stein grooms the synthetic turf with the machine he was given by the field builder. “I just run it behind the John Deere for 15 minutes a week during the season,” he says. This is the field’s third year and Stein reports no problems, no rips in sliding areas. “I am a proponent of the synthetic infield,” he says. “Even though I have a turf degree!” Stein earned a bachelor’s degree in ornamental horticulture from EKU as well as a master’s degree in sports administration.

CANISIUS COLLEGE, BUFFALO

“We are a multi-use (A-Turf) field and have turf everywhere except our mounds and home plates (bb/sb) to work,” says Jon Lyons, assistant facility director for Canisius College. Daily maintenance, we hit the removed dirt with a garden rake and steel brush to loosen it and then hit it with a push broom back into the circles. We let it go our first year and had a lot of work to do to get the circle back into shape. We used a power washer and that worked great to blast the hardened clay out and we then filled the rubber back in. We now do the power wash once a year.

“Game days are similar to our daily/weekly work. We run into trouble with time because we have soccer and lacrosse going on as we try to do work on it, it can get a little dangerous with lacrosse out there,” he says.

“The migration of dirt/clay into the turf surrounding the mounds and home plates is a constant battle, but it is nothing compared to the work involved [when] we had a grass field.

“Looking back and talking with our coaching staff, being in the Northeast we should have ‘turfed’ home plate. It would allow us to use it in a great deal more in all seasons,” Lyons says.