



Tips from David Frey

David Frey has more than 45 years of experience in maintaining, renovating, designing and building all types of fields. He should be considered a “founding father” of STMA; Frey succeeded the legendary Harry C. Gill as STMA president from 1983-1985 when he was the head groundskeeper at the old Cleveland Stadium. He was involved in developing new types of mound clay, a powered device for field tarps, and using geotextiles for bench tarps and field protection. He currently owns Field Specialties, which builds and renovates natural grass fields. Here are some tips from the master:

THE BEAUTY OF A NATURAL GRASS surface is that with maintenance, it can last forever. I spend a great deal of time fixing and improving surfaces and I have been asked how I develop a plan to evaluate them. Grade and consistency come first, followed by drainage and then grass cover.

You may notice that I like to use the word “surface” rather than field. A field is an area, be it level and true or not, that is used for pasturing and raising crops. A surface is a specific area that is designed for a particular activity, with defined dimensions, grades and variations.

Some surface changes are a matter of time and/or use. Changes to the requirements of particular sports have required the surfaces to change size, position of the goals, and room around the outside of the playing surface. Incorporation of other sports to be played on the same surface requires other considerations.

For example, NFL fields have changed dramatically. In the beginning the teams basically would play anywhere they were allowed. Fields were not even the correct length (Tiger Stadium and Wrigley Field). Practice areas were totally different than the training centers you see today. Many teams practiced on only a field and a half and the indoor work was done in a warehouse.

» **SAND SLITTING** can increase percolation and break up compacted layers.

But times have changed, and grasses and soil mediums have changed too. Better varieties and higher sand/soil mediums make for better wear and drainage. High sand profile baseball fields have improved the use of grass fields in competition with artificial surfaces. Of course, separate facilities for each discipline have been the greatest change in baseball and football.

Most surfaces that I review are those that have been used for many years and hopefully have some good basic structure. Baseball requires good drainage, particularly from the infield area. Fields that are built backwards are those where the grades run toward the infield. They are not easy to fix without lots of changes and cost.

In most cases for baseball, I find the first thing I change is to raise the height of home plate, usually about 4 inches. Home plate and the mound are where everything starts. If they cannot drain the game is over. Do not get carried away with the idea that the plate and the bases have to be at the same height. Good plan, but does not always work unless you are in Florida. Raising home plate will raise the mound and the increases the grades on the infield grass, therefore providing better drainage.

GRADE AND CONSISTENCY

My approach to a football or soccer surface starts with the grade and consistency. Hopefully the surface was built with enough height to help the surface to drain. One rule of thumb is that you should be able to run at full speed and look over your shoulder and know the footing is consistent. Therefore, the grade might not be to specifications, but it should be consistent. The center of the field must not be lower than the sidelines. Bad or uneven grades would be reasons to rebuild the field. This

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has to do with safety and playability. If the grade is within reason both the drainage and grass cover can be fixed without rebuilding.

I like to see the grade slope to be about 1% from the center line at the most. Less than a ½% slope will develop low areas and there is not enough slope to move water through the grass. I do not like the surface to be lowered at the ends. It changes corner kicks and goal play in soccer and end zone play in football.

Let's say the basic grades are good, but there are depressions or holes. Another possibility is to true up an existing surface using a sandy mix of more than 85% sand and a laser box to spread the material over the entire surface. Do not use topsoil as it will seal off the drainage. Straight sand is okay, but tougher to get the new seed to germinate. The grass from below will come through at some point if the layer is not too deep.

PERCOLATION

Okay, the grades are acceptable, but the field is worn and the complaint is poor drainage. There are several methods to increase percolation in a sports surface. Installation of sand slitting, or several of the new thin pipe materials serve to move water, and break up the compacted layers.

In my opinion, a drainage pipe installation in existing grass is not a good plan. Look at the process. First you trench the surface every 15 or 20 feet. Then you install pipe and backfill with either a sand or stone. The two problems that happen will be to get grass es-

tablished over the trench and keep the grass during drought situations. If you add soil to establish the grass, the soil acts to seal off the drain. French drains along the perimeter are great to capture water off the surface. The same drains in foul territory can greatly solve water runoff problems from the surrounding areas of the diamond. I do not put drains under clay infields as the clay will not percolate and if you backfill with sand the ball bounce is inconsistent.

I am always amazed that schools balk at strong overseeding and fertilization programs. It is a low cost method to improve a surface. Compare that to the cost to seal the old parking lot each year. And do not forget the practice surfaces. Football players spend almost every day on the practice field and 1 day every 2 weeks on the playing surface.

Grass cover not only improves the surface appearance, it improves playability. Grass needs to be grown aggressively which means a good fertilization program needs to be in place. Compare that cost with the renovation cost. Do not try to seed into a well-established stand of grass, as the germination rate is very low. Remember that seed count is important. There is a big difference between ryegrass and the bluegrasses. My suggestion is 20% to 30% ryegrass in a blended mix in new seeding to help the bluegrass to get established. I do not recommend seeding any bluegrass into a stand that has rye as it cannot compete. Do not forget annual ryegrass for those seedings that have to happen now. ■

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