## Roger Bossard: **Tips for maintaining sports fields**

whether you work with high school, college, municipal, or professional sports, maintaining your field properly is imperative. It can get you back on the field after a rain and minimize player injury by providing an even, resilient playing surface.

While a professional groundskeeper may have a crew of more than 20, many of their tips can improve sportsfields at any level. Roger Bossard, head groundskeeper for the Chicago White Sox, has been in the sportsfield business for over 35 years. He is a world-renowned designer and builder with several prominent projects throughout the world, including six of the last 10 Major League baseball fields in the U.S.

He suggests, "There are two main factors in the success of any sportsfield project. First, is that the right decisions are made during construction. Second, that it is properly cared for and maintained. Building and maintenance is really a partnership. Sportsfield builders and groundskeepers work hand in hand. Either you both look good or you don't!"

You can research, plan, and design the best field around and if it's not maintained properly, you've got a problem. You can have the most talented groundskeepers in the game and if your field is improperly built, you'll always be fighting a losing battle, one which can cost hundreds of thousands of dollars to fix.

"While research data and turf science are important to the design of a sportsfield," Bossard added, "you have to use it in the context of athletics. There's nothing worse than a field architect whose never stepped foot on a ball diamond."

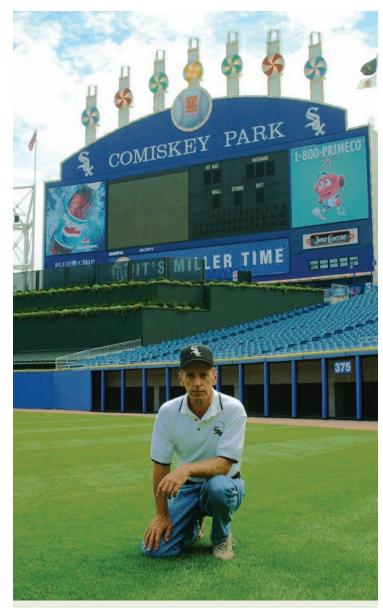
## **Design Principals**

Every ballpark is unique. The geographical region, irrigation system, type of grass and habits of the players all have an effect. Bossard works with a team of experts like Dr. Hank Wilkinson of the University of Illinois and Andy Wright of Muller Mist Irrigation. Through their years of experience, they have become the undisputed experts on sportsfields and retractable dome field installations.

"When we start a project, our approach revolves around three considerations," said Bossard. "These concepts don't just work at the Major League level. If anything, they're even more important in municipal and academic projects."

First, never forget the purpose of the field—athletics. The decisions you make will affect its ability to be available on game day. Games that have to be rescheduled or cancelled cost money. Inadequate turf and infields can also cause poor playing conditions, which can lead to injury.

Second, common sense goes a long way in designing a field. Keep it simple. Once it's built, someone is going to have to take care of it. His success depends on the decisions you make. In Seattle, the team spent 3 years finding a grass that would proliferate in the Pacific Northwest climate, under a retractable dome, no less.



Bossard has constructed six of the last 10 Major League fields in the U.S., including his own stadium, Comiskey Park, where he actually installed 550 tons of the old infield into the new facility. "It's all about the dirt."



Bossard advises to look for a soil conditioner with good granule sizing, a deep red color and minimal dust. He's even helped develop his own special product.

Finally, the original design concept must not only keep the construction budget in mind, but the maintenance budget as well. Even the best designs will suffer if you can't afford to take care of them.

## **Maintenance Principals**

Keeping this thought process in mind, there are four keys that will ensure the field stays in top-notch condition. "In baseball it's important to remember," said Bossard, "70% of the action takes place on the infield, so that's where your resources should be focused. Don't forget the turf though, proper maintenance will prevent more expensive repairs down the road."

1. Know your athletes' wants and needs. At the Major League level, that means making sure that the franchise players have conditions that optimize their talents. At other levels you need to ensure the field is safe and ready when needed.

2. Choose the best base clay and soil conditioners for your needs. There's no such thing as one perfect infield mix. Of all the soil structures out there, only about 10% are even suitable for a baseball field. You have to find the one best for your situation.

3. Verify that your drainage options meet your needs. The number and placement of your watering heads is critical to good irrigation. Your clay should be moist to a depth of 1/2-3/4 inches at game time. Of course, weather factors like wind and humidity will play a role in the amount of water needed.

4. Find a knowledgeable/skilled groundskeeper. There are many good resources and a pool of knowledge out there to help you. The best resources are often other groundskeepers in your area.

If you want to create the perfect medium for playing ball, you have to do your homework. "We've tested as many as 20 different soils before finding the optimum infield mix for a site," said Bossard. "There are some Major League stadiums, including Comiskey, that have even brought the infield clay from the old stadium to the new facility. It can be one of the most valuable assets you have.

## Soil Conditioners for Winning Fields

"Most Major League groundskeepers prefer a soil conditioner made of calcined montmorillonite clay," said Bossard. This will optimize the conditioning and moisture management effects on your field. These products are super-heated to provide stable granules that are durable and don't break down into dust. Find a granular size distribution that best meets your needs and your budget. For your turf areas, a hard, irregular-shaped material will give you the best performance. "For the infield, I recommend choosing one with the reddest color and the least dust," added Bossard.

On the infield, the more uniform the granule size, the more professional the infield will look. Of course, you'll also pay a premium price for that sizing. Calcined montmorillonite soil conditioners with a larger range of granule sizes still provide the best conditioning features at the most economical price.

"Through years of trial, I've even come up with a special blend that I think works the best for me," advised Bossard. "You want the granule size to be fairly large and uniform to optimize the stability of the playing surface. You also need a certain amount of small material in the blend to quickly soak up moisture. But I'm careful not to allow too many small granules, because they start to settle, giving less traction. I've worked extensively with Pro's Choice to develop my specially formulated conditioner 'The Bossard Blend'."

These considerations are of crucial importance at the Major League level. For the average ballfield, choosing a good calcined montmorillonite clay that best manages moisture and keeps the infield mix non-compacted can go a long way toward maintaining a field that is playable, rain-delay resistant and reduces player injury.

One of the biggest challenges on the field can be maintaining adequate moisture. Trying to water enough to keep the grass from wilting in the hot summer heat, while working around batting practice and games is hard. The more moisture the soil can maintain, the better. Soil conditioners can ensure the best moisture management for hot, dry days and during rainy conditions.

Montmorillonite soil conditioners aren't only used in the infield, they can also help you improve your turf. "Aerifying three to four times a year promotes gas exchange. The conditioner can break up compacted areas and promote stronger rootzones and healthier turf," adds Bossard.

"Over the past 20-years there have been great strides in agronomics, like chemical supplements and even high-tech mowers," added Bossard, "but in reality, the principles of maintaining good turf haven't changed that much. The goal is to create a field that looks and plays great, and is easy to maintain."

