

So, you want a synthetic field?

Within our school district we are considering synthetic turf. Can you provide some highlights or comparisons with natural grass to help in our decision?

Orange County, NC

I have always found that synthetic turf brings out interesting questions and I am glad that people are asking for more information before they drop a load of money on a new field. I always try to present an unbiased comparison of the two field systems. Even though I strongly prefer natural systems, I realize for some situations synthetic may be the best option.

No matter what type of field is installed, a good sports field should: a) have no major influence on the outcome of a game, b) have sufficient traction and firmness to maximize player ability without increasing risk of injury, c) have sufficient cushion to provide some protection for soft-tissue injury, and d) have no standing water. While traction can be hard to measure, with tools like a Clegg Impact Tester, hardness values can be easily determined. The NFL has established some hardness guidelines expected for synthetic fields and several researchers have published “acceptable” hardness numbers of natural surfaces based on player surveys.

The main reasons I have found discussions about synthetic fields so interesting are the justifications that people have so ardently presented to me as to why then need/want a synthetic field. Some comments have been logical, others are not, and some are just funny. Here are the “Top Ten Reasons” I have heard for wanting a synthetic field:

10. My existing fields are not green enough.
9. A synthetic field would be cheaper than a lawsuit.
8. My turf equipment is worn out, and I won't need any when I switch to synthetic.
7. Everyone else is switching.
6. Synthetic fields are safer for the kids since we will not have to spray pesticides.

5. Synthetic fields are expensive, so they must be good.

4. No more painting lines.

3. If they are good enough for the NFL, then they are good enough for our team.

2. We can raise the money to get a synthetic field installed, so why wouldn't we want one.

1. With a synthetic field, we will be able to use it 7 days a week for as long as we like . . . and with no maintenance required.

In the end, a strong case can be made for either surface. Since they each have positives and negatives, I believe there is a place for both types of field surfaces. It is hard to argue with the in-season durability of a synthetic field, especially playing games during rainy periods. Nothing destroys a natural surface as fast as overuse and playing on saturated fields.

I also think it is safe to say that synthetic fields require less maintenance than a natural field. Synthetic fields also seem to require less expertise to maintain, although knowledge of care and repair of the synthetic material is still necessary if it is to last. It is important that people understand that synthetic fields are not “no maintenance” and that to keep the field under warranty and to maximize longevity of the field surface that timely maintenance will be very important.

Over the years, I have seen several costs comparisons between synthetic and natural grass surfaces. The first comparison is the initial cost of installation. Because there are limited variations in design, the installation of a synthetic field is often easier to price than a natural grass field. Synthetic fields are always expensive to install; whereas, natural grass fields may price out over a rather large range. The big variable with a natural grass field is specifying the base sand with drainage, modified soil with drainage, imported soil, or on-site soil [Editor's note: for more on synthetic bases, see page 26 this issue]. Synthetic turf may only be 10% more expensive to install than a

premium quality sand-based natural grass field but could also easily be 1000% higher to install than a natural grass on a native soil. So, installation costs should be made based on specifics.

Equipment costs will likely be about 50% less for synthetic, with some common types of equipment needed for each. Materials for maintaining a synthetic field each year will typically run about 50% less than for a natural grass field. Labor hours for general maintenance have also been estimated to be about 50% less than needed for natural grass. Since you are not maintaining living plants that need feeding and trimming the labor is geared more toward cleaning and grooming the surface. Of course these are just estimates. Each situation has unique elements to consider.

Many other comparisons can be made between the two surfaces. As I stated before, they each have strong and weak points. And there may be one trait or issue that becomes the tipping point in favor of one surface over the other. For instance, the high surface temperature on a synthetic field may remove synthetics from consideration if the field is going to be used extensively in a hot, humid climate. Conversely, if a school has land for only one field that will be used by several varsity and junior varsity sports for practice and play, then a synthetic field will hold up much better during the year. This will likely result in the field having a shortened replacement interval, but for the time it is useable, it may be the best option.

So, regardless for the reasons used to select one surface over the other, at least consider as many issues as possible. Make sure that the surface that is picked makes sense in the short- and long-term. There will likely be some concessions made when picking one surface over the other, but make sure they are made after considering facts, not just passionately charged information. ■



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