

Home > Featured Articles > Hybrid systems: basics on an evolving industry



Hybrid systems: basics on an evolving industry

in Featured Articles | May 26, 2017

By Mary Helen Sprecher

Maybe you've heard "the more things change, the more they stay the same." It definitely doesn't apply in this case. The sports surfacing industry is constantly evolving and changing to meet the needs of athletes, groundskeepers, facility owners and more.

One example of this is hybrid turf, which, as it sounds, is a field that is made through a combination of two systems: natural grass and synthetic turf. Although it's not exactly new on the market—it has been prevalent in Europe for several decades, where it finds heavy use as a soccer surface—it is gaining traction on this side of the pond and creating a demand for more information.

"There's no question; we're seeing an uptick in interest on hybrid turf systems," says Mark Heinlein of The Motz Group in Cincinnati, OH. "I think it's still much, much more common in Europe, but we're seeing a big demand. There has been a big increase in the inquiries in what it is and how much it costs."

Which, come to think of it, a lot of people don't quite understand. Heinlein provides a quick primer. Although the term, hybrid turf, is often used generally to describe any system that incorporates both synthetic and natural grass fibers, it also has come to mean something more specific in the marketplace. However in the interest of not causing too much confusion, we'll start with a breakdown of the various classifications of these systems, as found in products in the marketplace.

There are three main classifications of hybrid turf systems: Reinforced Turf, Stabilized Turf and Hybrid Turf. What follows is a quick review of each type of system and a few examples of some brand-name products. Those who are interested should contact the manufacturers and inquire about contractors in their area who can provide information on various systems and their potential for use in a given situation. Note: This is by no means a comprehensive list, and field owners are encouraged to research all available options.

Reinforced Turf

Heinlein defines these systems as those in which "synthetic fibers are mixed with the rootzone material (this is done either offsite or *in situ*). The fibers stabilize the soil and help secure the grass roots in the growing medium."

Some examples of branded systems include Fibresand and Loksand (products prevalent in the UK), StaLok (found in the U.S.) and Airfibr (a French product).

With both Fibresand and Loksand, explains Heinlein, fine synthetic fibers are pre-mixed with the rootzone sand and spread 1-1/2 inches deep. (On the sod farm, a thin sand layer may be spread below the imported rootzone to assist in harvesting of the material.) The finished product is produced from seed or washed sod. Airfibr, meanwhile, uses a medium that includes cork granules, synthetic microfibers and fine silica sand.

ADVERTISEMENT

ECO 600



Popular Recent

Verti Drain 2216



FC Barcelona stays with GrassMaste

FIND US ON FACEBOOK

MULTIMEDIA

- E-Newsletter Video
- Current Digital Edition
- Digital Edition Archives

NEWS & FEATURES

- Daily News
- Product News
- Personnel News
- Around The Web
- Press Releases

The cost of these systems can vary, says Heinlein. "It's really driven by a couple things. There's the cost of the product itself. Then there's the application of the product specifically, meaning how it is produced. If it is produced on the site, it's going to be less expensive than if it is grown on a farm and brought in and installed. Depending on where the sod farm is, you might be paying somewhere around \$2 to \$3 per foot, and probably in the \$4 to \$5 range if it's grown offsite."

Stabilized Turf

The second category, Stabilized Turf, is defined by Heinlein as "a synthetic mat, infilled with sand to the tops of the fibers. The root system of the grass entwines around the synthetic fibers and passes through the open backing. The fibers do not extend into the canopy, creating a 100% natural grass playing surface." The system offers a sod thickness that is consistent throughout, as well as immediate playability upon installation. It is also relatively easy to replace or rotate sections as needed, according to Heinlein.

One branded example of Stabilized turf is Eclipse.

Hybrid Turf

In this type of system, Heinlein notes, "upright synthetic fibers extend above the growing medium. The fibers reside within the grass canopy."

There are two categories of hybrid turf: permanent systems and mat systems. They are defined as follows:

Permanent Systems are so named because once installed, "the surface cannot be rotated or replaced during the playing season," notes Heinlein. "They are created via injecting stabilizing fibers into the rootzone of a grass system. The stabilizing fibers do extend above the soil line."

Two branded examples of these systems are GrassMaster and SISGras.

Mat Systems are "similar to stabilized turf," according to Heinlein, but there are differences. The mats may be knitted, woven or tufted, and grass grows within this synthetic matrix, with the synthetic fibers extending into the grass canopy. Important to know: "The horizontal mat allows for removal and/or replacement as needed." The surface also has a strong, dense green appearance.

Some examples of mat systems are Hero Hybrid Turf, Xtragrass, XtremeGrass, Eclipse LP and Mixto.

Because there are multiple differences, some subtle and some large, between various surfaces, it is best to research products, as well as to ask questions in order to find the product that is best in any given situation.

Of course, the big question—and the one on all field owners' minds—is how durable these systems are, and how much maintenance they require to keep them in good shape.

There's no question that these fields have increased wearability over a plain grass field, so they are in demand among people who want that, but want to play on grass, rather than all synthetic," notes Heinlein. "And of course, anything that increases the usability or the quality of natural grass fields makes it that much more attractive. They compare to a synthetic turf surface in the installation cost because you take the basework out of it. Hybrid fields still are grass fields, though."

And that, he notes, means they're not indestructible.

"Sometimes, people are looking at these systems and we say, 'Well, how much do you want to do with it?' If they tell us they're going to use it about 30 hours a week for at least 40 weeks a year, we tell them, 'If you're going to give it that much use, you want a synthetic field because this is still grass.' It's not like you can put this in and it allows you to do everything a synthetic field does. It allows you to do more than a non-hybrid or standard grass field does, but it still needs a lot of the same things grass needs."

In terms of maintenance, hybrid systems are maintained in a manner similar to that of grass fields; most will require solid tine aeration, verticutting, dethatching, spring tine raking and more. In addition, field owners are cautioned to ask about how often they can topdress fields with sand, since it is essential to avoid burying the fibers. In mat systems, worn areas are easier to replace; permanent systems may require a thick-cut sod overlay.

Heinlein says that when the playing season comes to an end, "year-end renovation must take place, and may include anything from thinning of the grass canopy to complete surface removal using fraze mowing, a practice that is routine in Europe and often done using a Koro with the Universe Rotor."

Permanent systems can withstand heavier year-end maintenance techniques, since the fibers are driven into the rootzone and therefore are more resistant to being torn out. Mat systems can also be fully renovated but because they are shallower, different practices must be used. Field owners should discuss all options with a contractor and ascertain they are using the correct techniques for their field.

Which system is the best?

There's a trick question if there ever was one. After all, there is no "best system," only the system that is best in a given installation. Heinlein notes that the smartest thing an owner can do is ask questions. Whether investigating one type of system (such as hybrid turf) or trying to make a decision among grass, synthetic or hybrid, your field contractor's recommendations are only as good as his or her knowledge of your specific situation. Therefore, come to the table armed with the following facts:

- Which sports will be played on the field and how often? (Remember that different sports have different needs and desired playing characteristics in a surface).
- Will the field be used for practice as well as for games?



SportsTurf
272 likes

Like Page

Be the first of your friends to like this



SUBSCRIBE TO OUR CHANNEL

GreenMediaOnlinePubs
11 videos

Subscribe 71

- Will it accommodate other activities such as marching bands, assemblies, graduations, etc.?
- How many months of the year will the field be in use?
- What is the weather like?
- What is your budget for construction?
- What is your budget for maintenance?
- How much of a crew do you have who can take care of your system (no matter what type you choose)?
- Is this a main field, your only field or one of several fields?
- Will it have downtime to recover from heavy use or is that out of the question?

In addition, be ready to discuss things like the reasons you are considering a specific system, or type of system.

Heinlein expects the industry to continue to evolve and change.

"In the last three to five years, we've seen a lot of focus on the redevelopment and reengineering of all those systems. We'll probably see a lot more of that as time goes on."

Mary Helen Sprecher is a freelance writer associated with the American Sports Builders Association, which sponsors meetings and publishes newsletters, books, and technical construction guidelines for athletic facilities. 866-501-2722 or www.sportsbuilders.org.

Like 2

Tagged with: [HYBRID TURF](#)

◀ Previous:
City to charge fees for field
maintenance

Next: ▶▶
Infill products from Target
Technologies Intl

ABOUT ESCHRODER

