Soil Stabilizers

Sports turf managers are constantly searching for tools to help keep their fields safe and playable through extended seasons. Over the years, several companies have introduced soil stabilizing products to help strengthen turf against the punishment of athletic competition.

While there's no shortage of opinions on the effectiveness of each individual technique, supporting research is more difficult to come by. I can't presume to tell you which product, if any, is right for you, but it's always important to know what's out there.

In a previous column, I discussed the use of crumb rubber topdressing to stabilize and strengthen soil. I urged readers to explore recycled products that could benefit both fields and the environment. Now, I turn my attention to products that are originally manufactured as soil stabilizers.

Polypropylene

Several athletic turf soil inclusions currently available are made up of polypropylene. This thermoplastic material is safe, non-toxic, and non-carcinogenic. Fibers are not bio-degradable; they won't break down from contact with naturally occurring chemicals, alkalis, and acids.

The following describes several currently available products that use polypropylene materials to stabilize athletic turf:

• Turfgrids polypropylene fibrillated fibers are incorporated directly into a field's root zone. The product claims to give additional strength and stability by reinforcing the base soil and root structure.

When mixed into the soil base, the fibers provide a support system for developing roots. They act as underground anchors to give roots three-dimensional strength and prevent surface break-up.

• Netlon Advanced Turf consists of small pieces of polypropylene mesh randomly oriented in a turfgrass root zone. Blended into the growing medium, the mesh elements interlock with each other and with root zone particles. The goal, again, is to create a stable, three-dimensional structure as the roots become entwined with the polypropylene material.

The system claims to help turf resist compaction, drain more quickly, develop greater root density and depth, experience reduced divot size, and recover from injury quickly.

• SportGrass uses polypropylene to create a sort of hybrid natural-grass/artificial-turf surface. Synthetic polypropylene blades tufted into a woven backing are imbedded in a layer of amended sand, and a natural-grass surface is installed over the top. The fibrillated synthetic blades invite the root system to grow through the fibers and the horizontal backing.

Like the other products mentioned, SportGrass operates on the principle of anchoring roots. The system claims to maintain a level and consistent surface through heavy-use schedules, and to protect the crown as well as the root zone.

• The GrassMaster system directly inserts polypropylene tufts up to 20 centimeters into established turf at two-centimeter intervals. On average, only three fibers are injected for every 97 blades of natural grass.

Again, the intention is to encourage roots to entwine with the synthetic fibers, combining the strength of artificial turf with the benefits of natural grass.

GrassMaster fields are ready for high-intensity play immediately after installation. The system claims to increase field durability even in high-use situations.

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Tip o' the Month

A Sound Environment

by OPEI

If you're planning any equipment purchases this year, invest in the health of the grounds you maintain by making environmentally sound choices. Manufacturers now offer equipment that runs up to 70-percent cleaner than previously available products. When available, choose Environmental Protection Agency (EPA)-certified engines to help keep the air clean.

The Outdoor Power Equipment Institute also offers these suggestions to help keep your existing equipment environmentally friendly:

• Keep all outdoor power equipment in good condition through regular maintenance; keep blades sharp and all vents and working components clean and free of obstructions.

• Plan ahead for efficient outdoor maintenance by clearing work areas of debris, keeping pets and children away from work areas and machines, and having all attachments and supplies readily available.

• Mow, edge, roto-till, and trim in the most efficient patterns to save time and fuel.

• Save lawn clippings, and spread them around plantings to help hold moisture in the soil and inhibit weed growth.

• Recycle yard waste by starting a compost pile. Compost becomes an excellent soil addition. Use a chipper/shredder to process leaves, branches, and other waste into forms suitable for composting.

OPEI is a trade association whose membership is primarily composed of US manufacturers of powered lawn and garden maintenance products, components, attachments, and services.