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Synthetic Turf driving innovation in field marking technology

Editor's note: This article was written by Jim Brady, director of marketing with Eco Chemical Inc., and Jeff Fisher, business division manager for the TempLine Coatings and Equipment Division of Eco Chemical.

The increased use of artificial turf for athletic surfaces has created both challenges and opportunities for virtually everyone involved in our industry. Turf manufacturers are naturally

vying with their competitors, striving to continuously improve their products and services. Manufacturers of field care products must keep up with the latest in turf manufacturing and installation technology and keep their "ear to the ground" for new product and service

opportunities. Finally, athletic field managers and their staff are being tasked with learning and keeping up to date on the technology required to maintain top performance from the turf while optimizing their investment. For everyone involved, keeping abreast of change is essential.

According to the Synthetic Turf Council, the number of synthetic turf sports field installations grew an estimated 18% in 2013 and is on track to grow another 16% this year. Anecdotally, all of our distributors report seeing more and more synthetic fields being installed, either to replace or add to natural grass field facilities by municipalities and schools in their markets. Besides the continued improvements in turf manufacturing and installation technology, leading to improved performance and durability, another clear driver behind this trend in certain parts of the country is the persistence of drought conditions, where synthetic turf is the clear winner in terms of being less taxing on water supply.

Another driving factor is the incremental revenue opportunity presented by a multi-venue use plan for the field, particularly with colleges and professional installations. Synthetic turf lends itself to this strategy since it can be easily and quickly converted from one sport or event to the next and can stand up to the heavy traffic generated by non-sports events occurring on the surface of the field.

A successful multi-use program depends on a versatile field marking system that facilitates changing from one sport to another. If you stop and think about it, the essential criteria for a superior synthetic turf paint are inherently contradictory. The paint is expected to go on easy, not alter the play characteristics of the field, stand up to weather and play wear, and yet, come off easily. Some of the earliest



synthetic turf marking paints on the market were simply modified versions of successful natural grass paints, with one formula fitting all seasons, climates and play expectations. These early products were formulated to thickly coat the synthetic turf strands in order to achieve effective adhesion to a plastic surface. They significantly altered the play surface and proved difficult to remove, resulting in a high risk of turf damage and extra wear in the removal process. Also, once removed from the turf strands, these products could leave stubborn residue on the field that degraded the appearance of the turf and interfered with play quality.

The trend toward increased multi-event use has driven the further evolution of paint products. The practice of simply buying and applying a paint without regard for preconditioning and eventual removal has been displaced by a more systematic approach to field painting and removal. As a manufacturer of field conditioners, paints, removers and turf cleaning equipment, these market trends have been very favorable for us. We entered the market with the benefit of hindsight and proceeded to build our products, equipment and service model as an integrated system. We began by working with the Seattle Seahawks to gain a thorough understanding of the problems they were facing with field painting and removal. Early on in the process, we identified two essential product features: our paint had to coat without altering the play characteristics of the turf, and it should re-liquefy when it is removed. We also identified the need to offer different paint and remover formulas to accommodate different field change plans and seasonal factors.

Rapid evolution in the market is pointing toward the need for more of a system-focused rather than product-focused approach. Rather than just shopping for paint in a pail, turf care professionals will be looking for a comprehensive start-to-finish solution for field painting and paint removal, adjustable to varying field conditions and intended duration of use. Our paint lines currently include three different grades to suit different permanence requirements and still

work well with our removers and removal equipment. At the top of our equipment line, our Mantis Hydro-extractor was the first of its kind in the market, specifically designed and engineered to work with our paints and removers to extract paint removal waste from the turf. Thorough extraction is rapidly becoming the standard for paint removal in order to minimize removal residue remaining in the turf, or to be flushed through the turf to potentially interfere with field drainage.

As the market continues to grow in size and field use intensity, we anticipate that the systems required to satisfy this market will also continue to grow in complexity. Future systems will involve increasingly sophisticated products and equipment, combined with technical know-how, placing growing demands on those who provide coatings, removers, conditioners, equipment and the essential technical expertise.

Virtually every synthetic turf product comes from the factory with certain residual chemicals that tend to interfere with field paint adhesion, at least for the first several application and removal cycles. Everyone who has experienced the challenge of applying field paints to newly installed synthetic turf will understand and appreciate the value of a product that is formulated to pre-condition new turf surfaces to make them more paint friendly.

Our metallic paints were produced in response to several client requests and bring a whole new dimension to the art of logo painting.

Our TempLine Turf Green responds to the growing demand for a natural grass product to keep grass green in hot dry climates and to extend the green appearance of grass in dormant periods. This product responds to growing market interest resulting from recent persistent drought conditions across the country.

Further into the future, we see the opportunity for a number of products, including the next generation of our Mantis extractor, and a permanent field painting system for synthetic



turf. On the natural grass side of our business we will be adding colors to our line, a low cost paint mixing station and possibly a growth inhibitor paint option.

Given this increasingly complex combination of materials and equipment, an essential value will be our willingness and ability to share product information and use guidance—to counsel new and existing customers in dealing with a special need or circumstance. It also demands that we be able to share this knowledge in a broad reaching, real time fashion. This becomes even more essential as the number of synthetic field users continues to grow. In response to this challenge, we are gathering and organizing a vast body of knowledge we have accumulated over the early years, then translating and packaging it to make it more readily available to our clients. Our multi-channel communication plan includes the use of more informative product information materials, website content and tools, training materials and the expansion of our service outlets through the addition of qualified distributors and dealers across the country.

One thing everyone can likely agree on is the inevitability of change. The increased use of artificial turf for athletic surfaces represents a sea change that will continue to challenge everyone in our market, including manufacturers and their customers. The opportunities for those of us in the field-marking segment are substantial, but will require new ways of thinking about how the market is best served. Regardless of one's position at the table, the need for information will be at the heart of a successful adaptation to change along with the ability to react with the right products and services. ■

Tools & Equipment

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Beacon Athletics' Streamliner dryline marker

The Streamliner is simply the best dryline marker in the business. With its variable flow control, Field Testing has proven the Streamliner is the best for the quality of the chalk line while using less chalk than its competition. A heavy-duty steel frame, pneumatic tires, rugged molded plastic hopper, flexible brush agitator, accurate string-line guides, and a one-button retractable handle for easy storage set the Streamliner apart. Available in 2-, 3-, and 4-wheel models with optional Double-Play aerosol paint attachment.

Beacon Athletics



Game Time field marking powder

Louisville Slugger Game Time White Stripe Field Marking Powder is a bright white premium marking powder that is safe and easy to use on any field of play. It complies with the NCAA rules for athletic marking powders and can be used on baseball, softball, football, soccer or any athletic field. Benefits include: Easy to apply; economical; used on any athletic field; harmless to skin, clothes and turf. Recommended for baseball, softball, parks & recreation, youth leagues, football or soccer. Available in 56 bags per palette, 16 pallets per truck load, 896 bags total (50 lb. bags).

Game Time Sports Systems



Tru Mark steel string winder for cordless operations

The heavy duty string winder with reel knob allows for cordless drill connection and quick line retrieval. The steel powder coated unit with ball bearings and 10 inch spool holds 1,500' plus feet of braided twine. The spike handle allows for easy off loading of twine when staking. Line retrieval is as easy as pulling stakes, connecting a cordless drill to the 3/8 inch HDSW post, putting the spike handle in the ground, and pulling the trigger while guiding the line onto the reel. The Tru Mark heavy duty string winder is built for the toughest of conditions and operations.

Tru Mark Athletic Field Marker



Titan PowrLiner Series: dependable line striping

Serious turf managers and athletic organizations rely on Titan line stripers for dependable, precision performance. Built for hard work and long life, Titan's PowrLiner Series offers gear driven and hydraulic sprayers with outputs ranging from .33 to 2.50 GPM, and are capable of striping 106 to 800 linear feet/minute, up to 60% greater than competitive line stripers. For football fields, the PowrLiner 2850 is an intermediate striper designed to handle the rigors of everyday use, but weighs only 160 pounds. For full-time field duty, the PowrLiner 4950 will complete medium- to large-scale turf striping projects quickly and reliably. Add a Titan LazyLiner ride-on driver to further increase speed and productivity. Backed by the best and longest warranties in the industry.

Titan



NewRider 1700 HPA by Newstripe, Inc.

The NewRider 1700 is the economical ride-on high pressure airless striping machine for marking athletic fields. The NewRider 1700 is designed to quickly spray straighter, brighter looking lines and the 25 gallon paint tank will stripe numerous fields without having to be refilled. Additionally, the fully adjustable spray pump saves money by spraying 'just the turf' and 'not the dirt' with any paint. The on-board purge tank eliminates clogging of spray tips and makes clean-up a snap. This model features a hydrostatic drive and a 10.5 hp OHC engine with electric start, and removable gun with 25' hose for stencils.

Newstripe, Inc.



Ultramax Red hose

Underhill International introduces the UltraMax Red, a custom-engineered, heavy-duty hose for parks and sports fields. Featuring Goodyear technology, the UltraMax Red is constructed from EPDM rubber and reinforced with spiral synthetic yarn construction. The Underhill hose is ideal for high working pressures and has burst strength up to 800 psi. UltraMax Red can be used for watering down turf and for equipment clean-ups and site wash-downs. It is kink, tangle and abrasion-resistant, and has machined brass couplings. Available in 25', 50', 75' and 100' lengths and 5/8", 3/4" and 1" sizes. Custom lengths and sizes are also available. UltraMax™

Underhill