asked several top turf managers for their "Top 5" recommendations when it comes to painting or marking their football fields. We shared some last issue; here are some others:

**Jay Warnick, CSFM on field painting**

I have learned especially of late that painting a field is not just about a paint machine and some liquid that comes in a 5-gallon bucket. It is part of the field system and contributes or detracts from the overall quality of a field in the same way that mowing, fertilizing, and aerating can.

Field managers should realize the potential that painting will have in relation to the safety, playability, and aesthetics of any playing surface. Here are some tips:

**Safety.** Poor quality paint applied repeatedly on a field will lead to turf die-back, which in turn will impact the footing and stability of the field. Also, paint applied with improper equipment and technique can lead to a change in surface abrasion, hardness, and footing on natural and synthetic surfaces.

**Playability.** Field managers have the important responsibility of "setting up the game board" by using painted lines and markings. Field markings establish the parameters by which the game is played and poorly applied field markings can impact the quality of an event, and even more serious, the eventual outcome.
Aesthetics. Few things convey the professionalism of the sports turf manager more to the public than the sight of a freshly mowed field of deep green turf with gleaming, crisply painted white lines. Add to those bright, colorful logos, and the feeling of pride that comes over fans and players and your staff is unmistakable.

Jay Warnick, CSFM is a former NFL turf manager who now works for World Class Paints.

Top 5: Painting infill fields

1. Be sure that you are using “infill friendly” paint.

Sometimes it is overwhelming to think about all the paint that is on the market and available to the sports turf manager today. If you have to paint an infill surface like we do at the University of Oregon, there are some things that you will want to check before you start letting the paint fly.

There are many national suppliers that offer special paint that is manufactured specifically for artificial fields. Some of these are removable and others are permanent. It will also depend on the brand how you get the removable paint off. Some require only soap and water while others will need to be treated with a solvent and scrubbed to remove them. Whatever type of paint you decide to use, make sure that you understand the consequences involved with what you put on your field to mark it (this goes for grass too). I would also be remiss if I didn’t mention that it is also a good idea to check with the manufacturer of your synthetic surface to see if they have any recommendations on field marking paint.

2. Use a base coat for brighter, more vibrant colors.

If you have ever painted an endzone or midfield logo and rushed to the top of your stadium to see what it looks like, only to be disappointed with the intensity of the color, try using a base coat before you put down the good stuff. I first learned this trick when I was a student at the University of Tennessee and I have carried it with me every step of the way. The dark green color of turf will have a tendency to dull some of the lighter colors like yellow, orange, and red. By putting a white base coat down before you paint, you will increase the vibrant look of the colors. We will spray a primer coat before we paint any of our mid-field logos for the first time each season or when we start to see the logos fade because we have not had a game in a while. With this method, your logos will look better and you will have to use less paint in the process.

3. Use a cardboard or Lexan “shield” when painting logos and numbers.

There is nothing worse than painting a logo, stepping back to admire the work you just did, only to notice a yellow halo in the direction the wind was blowing. Making a shield out of cardboard or Lexan can easily prevent this.

Whatever you use to protect against overspray, it should be flexible enough to contour to any logos or numbers that you have on your
field and it should be high enough to catch any over-spray that might be created. We use a 3 x 6-foot piece of 1/8-inch plastic signage that was left by one of our advertisers. It is perfect because it is flexible and is lightweight, making it easy to handle. We will paint all of our yard lines and once that has been completed, we have one person spray the paint for our logos and the other will hold the shield.

We also use smaller pieces of plastic for detailed logos that we have to put down. Using a shield will help your colors and logos stay true and looking good for game time.

4. When painting in the rain, aerosol can save the day!
I have had to become really familiar with this one living in the Pacific Northwest. It rains in Eugene about seven or eight months out of the year and we still have to have our practice and game fields looking their best even when the weather is the worst. We quickly learned that by using aerosol spray cans, the paint was practical—dry once it hit the turf. Even in steady drizzle we could walk across lines and logos shortly after they had been painted and not track any of the paint across the field. We now keep a full aerosol inventory of White, Black, Lightning Yellow and Duck Green on hand just in case the weather does not cooperate.

5. The tape measure is your friend.
Measure twice, paint once! I honestly believe that there is no tougher task for a sports turf manager than the initial layout of a football field. This is probably because if you make a mistake measuring one of the yard lines it gets compounded 20 times. Measure twice, paint once is one of the credos for the Duck’s crew!

We have standard benchmarks that we use to layout all of our fields. We triangulate the field corners and yard lines based on fixed points that are on our concrete field border. Once the field has been laid out and strung, we go over all the dimensions with our measuring tape one more time to ensure everything is correct. You do not only want to double check your field dimensions, but also any logos that will be going on your field. Be sure that they are square and centered left to right and up and down. If you take the few minutes to double check your layout, there will be less chance you have to spend hours correcting a mistake.

From Eric Fasbender, CSFM University of Oregon

Tip top shape
The best single piece of advice I can give is to work with a supplier than can support you on all facets of sports field striping: supplying field striping specific paint for the budget and surface you are working with, quality line striping equipment, custom stencils, etc. Sometimes you run into challenges where there is just no substitute for good advice. By working with someone that is experienced with the challenges unique to sports fields you can avoid having to learn a lot of things the hard way.

One of the most common problems I see is users not monitoring the condition of their airless spray tips. As a tip wears the spray pattern goes from a flat fan shape to a rounded shape. The rounded pattern delivers a lot more paint to the middle of the stripe than needed, wasting much of the paint. One of the many benefits of using high quality field striping specific paints is decreased spray tip wear. Lower quality paints have abrasive filler materials in them that increase the rate of tip wear.

And while we are on the topic of tip wear, make sure you keep the pressure set only as high as necessary to atomize the paint (assuming your sprayer offers pressure controls). Excess pressure is sometimes used because it can help blow grass clippings off the area to be striped. In fact, by only using enough pressure to atomize the paint will still clear the turf under the spray pattern.

From Mark Malloy, Director of Marketing for Airlessco.
Krylon Line-Up® Striping Paint. For a wide range of high-quality striping paints, Krylon's a winner on and off the field. Other benefits include:

- **High Quality**: New improved formula provides a one-coat, bright white stripe
- **New Universal Tip**: Fits all striping machines
- **Color Selection**: A wide range of options to match your team colors

For more information, visit [http://go.kpgind.info/sg2](http://go.kpgind.info/sg2).
Most of the original Thatch-Master verti-cuts sold in the early '90s are still in service. They have a 2-year warranty and use mostly standard parts that can be purchased locally. They are all "quick heal" meaning 1 week after verti-cutting it is hard to see traces. All machines use carbide tipped blades.

Turf Specialties
For information, fill in 055 on reader service form or see
http://www.oners.hotims.com/13972-055

Long-lasting verti-cutting

British combat soccer compaction

The UK is the home of soccer, and for many years it was accepted that part of the game was skidding around in mud in the winter months and coping with erratic ball-bounce on uneven, compacted pitches in the summer.

Modern turf maintenance practices have improved British soccer fields beyond recognition. However, the increase in the number of games played, particularly the growth of international competitions, has led to significant changes in the construction of fields, and the grasses used.

The demand for more durable, resilient sports surfaces has led to a growth in the popularity of stabilized rootzone mixtures but, in use, they can become hard and compacted. A reduction in hardness can be a major factor in reducing impact-related injuries to players, as well as maintaining the original characteristics of the playing surface.

To address these problems, SISIS Equipment has developed the SISIS Aer-Aid system, a tractor-mounted aerator that injects air directly into the rootzone.

Hardness tests on three different fields at a British Premiership soccer club, on natural turf, natural turf grown on a fiber-reinforced rootzone, and turf reinforced with artificial grass fibers, showed significant improvements to all after treatment with this system.

In dry weather, the system creates thousands of fissures, maximizing water use by the root system, rather than just creating channels to the drainage layer.

SISIS AER-AID
For information, fill in 054 on reader service form or see
http://www.oners.hotims.com/13972-054
Broyhill's AccuAire, core aerator is one of the most powerful aerators on the market, able to penetrate the toughest terrain. The FlexWing design allows the AccuAire to follow the contour of the ground, providing even penetration. Core spoons rotate on new roller ball bearings to last for years and years of heavy-duty service. Special water tanks are optional for extra weight on compact turf. Three-point and trailered available.

Broyhill
For information, fill in 057 on reader service form or see http://www.oners.hotims.com/13972-057

The Toolcat 5600 is called a utility work machine because of its versatile attachment lineup. There are more than 38 attachments available, including mowers, snow blades and blowers, augers, angle brooms, buckets, tillers and pallet forks. The standard Bob-Tach mounting system enables operators to switch between attachments in less than a minute and requires no additional assistance or tools.

Bobcat
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www.sportsturfmanager.org
The TerraSpike GXi by Wiedenmann features the same technology that is found in the TerraSpike XF (eXtra Fast) and the TerraSpike XD (eXtra Deep); however, the GXi is much lighter in weight and offers tighter hole spacing. The unit can be operated with as little as a 24-hp tractor at depths up to 10 in. The unique twin drive is offered with either a 385 rpm or a 485 rpm drive making it the fastest deep tine aerifier on the market.

Wiedenmann North America, LLC
For information, fill in 056 on reader service form or see http://www.oners.hotims.com/13972-056

This John Deere verticut attachment may be fitted to any Aercore 800 machine equipped with the 25-hp Kohler Command Series engine. For fields that aerate and verticuts as part of the same practice, the Aercore 800, equipped with the attachment, allows for both aerating and verticuting operations to be performed simultaneously. Carbide-tipped blades and may be operated in any of the Aercore 800's four operating gears.

John Deere
For information, fill in 060 on reader service form or see http://www.oners.hotims.com/13972-060

The new Verti-Drain 7120 outperforms all challengers as the fastest aerator on the field. At depths up to 8 inches and speeds over 3 MPH, the 7120 can aerate hard compacted soil fast and easy. With an 80 inch working width to maximize operating efficiency, the Verti-Drain 7120 is aimed at professionals that are not afraid to go fast.

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Lightweight aeration

Husqvarna’s AR25 offers an aerating width of 25.5 inches, and features a powerful 4.0 hp Honda engine with two detachable 36-lb. weights.

The patented free-wheel design and a seven-tine cutting deck allow operators to work without losing speed on tight corners, while minimizing turf damage.

The rear-wheel controls can adjust up to three inches in depth with coring spoons or optional spike and slicing blade reels.

Husqvarna
For information, fill in 061 on reader service form or see http://www.oners.hotims.com/13972-061

Turf aerators

The Plugr Tow Pro is a 45" self-contained attachment with a universal mount for operation behind virtually any tow vehicle including riding mowers, four wheelers or small utility vehicles. An electric start, 12 HP engine powers the aerator and 12-volt battery (included) powers the control panel to mow and aerate in a single pass without dragging down mower power. Capacity is up to 84,000 square feet per hour (approx. 2 acres) at approximately 4 mph.

SourceOne
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