

NEW MAINTENANCE
TIPS, APPLICATION RATES
AND RESEARCH!

TURFACE ATHLETICS™



COACHES AND GROUNDSKEEPERS GUIDE
BEST PREVENTION AND RESCUE METHODS FOR NATURAL GRASS FIELDS

Dramatically Improve Your Field

When you work with Turface Athletics™ you are connected to the industry's largest network of sports field knowledge—and to products that have been used on more sports fields than any other brand. For over 40 years, Turface® sports field conditioners have been specified by leading NFL, MLS and collegiate programs. The porous ceramic particles help reduce compaction, manage moisture and promote a healthy root zone to keep natural grass fields in top shape.



PREVENT SLIPPERY, WET CONDITIONS AND PROTECT TURF

- Topdress fields prior to events where rain is in the forecast
- Increase traction and safety by absorbing rainfall to reduce slippery mud patches
- Protect the crowns of your turf with non-abrasive particles

REDUCE WATERING REQUIREMENTS

- Apply 10 tons of Field & Fairway™ to add 2,000 gallons of water-holding capacity
- Protect turf from mid-summer dry spells
- Release water, at the root level, when grass requires it

RESCUE FIELDS FROM STANDING WATER AND MUD

- Pour directly into muddy wet areas for instant drying, better traction and safer fields
- Prevent turf damage by removing surface water

PERMANENTLY MODIFY THE SOIL

- Add water- and air-holding pore space within the soil
- Permanently improve drainage and reduce compaction

Turface absorbs more than 90 percent of its weight in water and does NOT deteriorate over time!

How to Choose the Right Product

FIELD & FAIRWAY™



Available in Emerald Green

- Medium-size particle
- Ideal for topdressing
- Optimal for native soil construction
- Available in Emerald to disguise worn areas
- Size is ideal for incorporation via aerification

TURFACE®



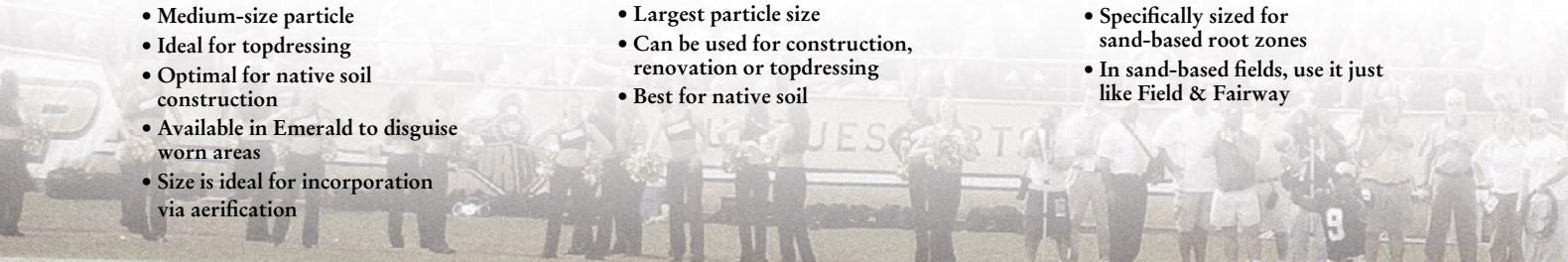
- Largest particle size
- Can be used for construction, renovation or topdressing
- Best for native soil

GREENS GRADE™



Available in Emerald Green

- Specifically sized for sand-based root zones
- In sand-based fields, use it just like Field & Fairway



Proven by Professional Research

Pamela Sherratt, Sports Turf Specialist at The Ohio State University's Horticulture and Crop Science Department, recently conducted research on Field & Fairway, comparing its use for preventing turf damage and rescuing turf from "rain game" conditions.

"One rain game can destroy a natural grass field. I'm pleasantly surprised with Field & Fairway in both preventing damage and speeding recovery of natural grass fields in rain game situations."

Pamela Sherratt

SPORTS TURF SPECIALIST, THE OHIO STATE UNIVERSITY

PROVEN PREVENTION:

Sherratt's 2007 study compared the performance of Field & Fairway to sand in perennial ryegrass grown on native soil. On half of the test plot, sand slits were applied at an 8" depth, 6" apart and on the other half, the grass was left untouched.

Across both of these surfaces, the following treatments were evaluated:

- Field & Fairway at 0.25" depth
- Field & Fairway at 0.375" depth
- Medium coarse sand at 0.25" depth
- Medium coarse sand at 0.375" depth
- Untreated

Fifteen days after application, the untreated area was irrigated until there was standing water (40-45% volumetric moisture). The same amount of water was then applied to the individual test plots, and high traffic was evenly simulated using a SISIS® wear simulator.

CONCLUSION

Twelve days after traffic on saturated soil, the combination of sand-slits and Field & Fairway at 0.25" and 0.375" depth and Field & Fairway alone at 0.25" and 0.375" depth achieved the best turf quality rating.

PROVEN RESCUE:

On a ryegrass test plot identical to the first, another study was conducted to determine Field & Fairway's ability to "rescue" a field from a rain game scenario. The field was irrigated until there was standing water and heavy traffic was simulated using the SISIS wear simulator. The following day, perennial ryegrass seed was applied at 10 lbs per 1,000 sq ft and 12-24-14 fertilizer was added at 1 lb N per 1,000 sq ft.

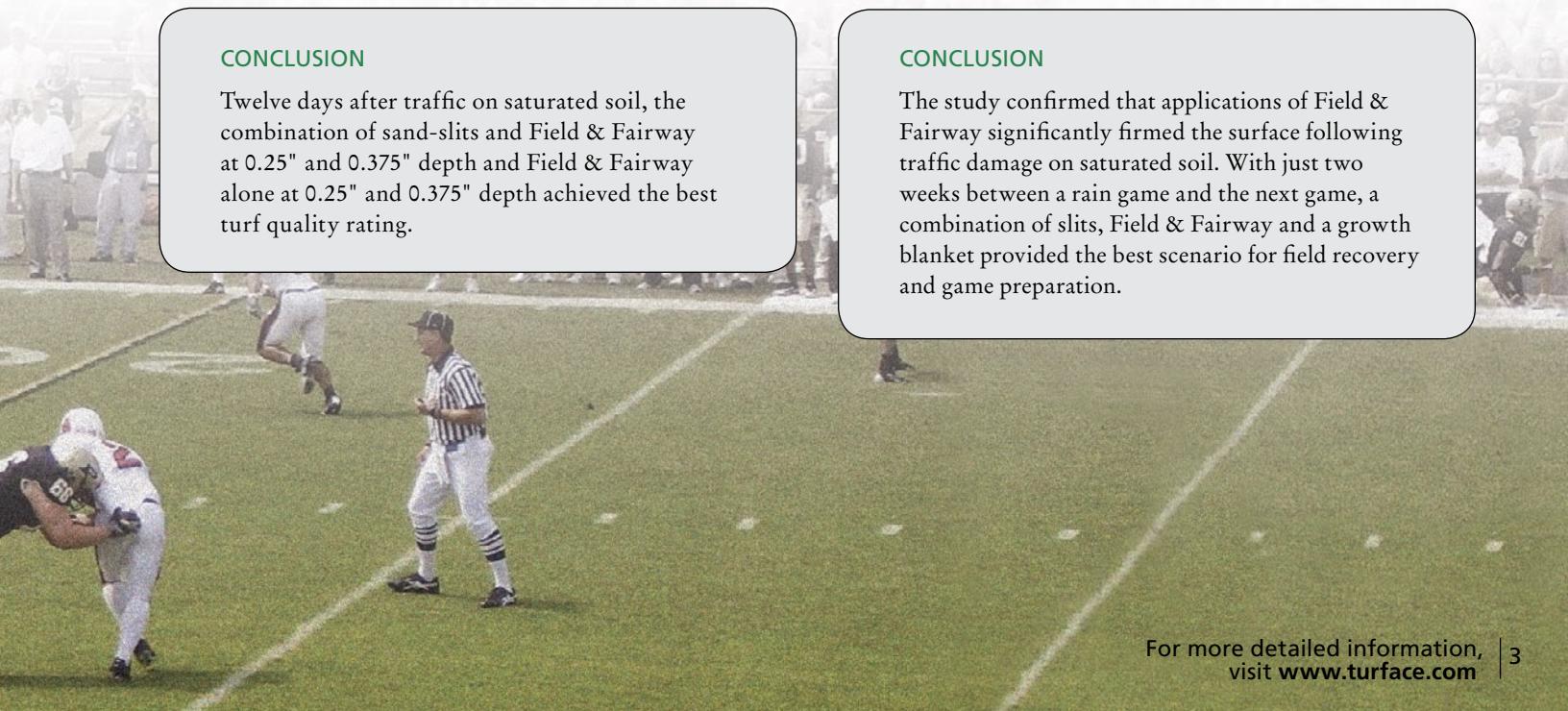
Then, five treatments were evaluated:

- Field & Fairway at 0.25" depth
- Field & Fairway at 0.375" depth
- Medium coarse sand at 0.25" depth
- Medium coarse sand at 0.375" depth
- Untreated

Half of the field was then covered with a growth blanket, and the other half wasn't.

CONCLUSION

The study confirmed that applications of Field & Fairway significantly firmed the surface following traffic damage on saturated soil. With just two weeks between a rain game and the next game, a combination of slits, Field & Fairway and a growth blanket provided the best scenario for field recovery and game preparation.



Preventing Damage with Turface®

Improvement in a Single Application

Fight muddy turf before the first drop of rain. One truckload (23-24 tons) of Turface® at the beginning of the year can save you a lot of headaches over a season. Our one-time, full-rate application recommendations are designed for turf managers to provide optimal results and the ultimate level of protection for your turf.

FOOTBALL FIELD (23 TONS)

- 1 Between hash marks: 9 tons* at 0.375" depth
- 2 Hash marks to sidelines: 6 tons* at 0.25" depth on each side
- 3 Sidelines: 1 ton* on each sideline

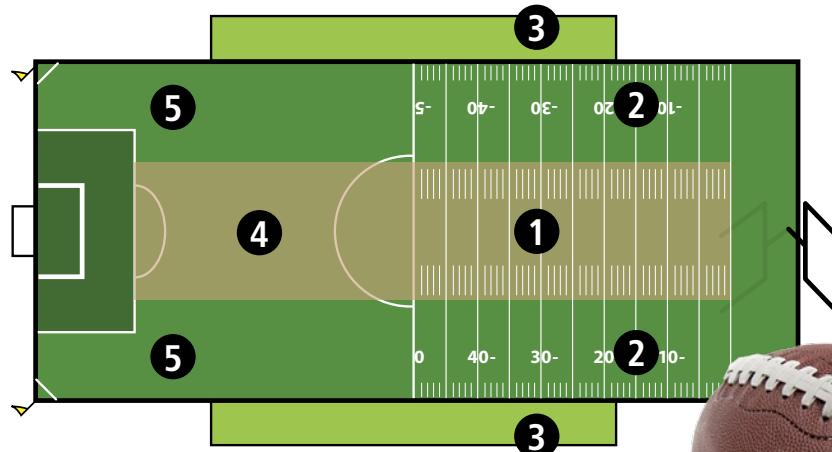
SOCCER FIELD (24 TONS)

- 4 Middle third of field: 10 tons*
- 5 Side two-thirds of field: 7 tons* on each side

Ken Mrock

HEAD GROUNDSKEEPER,
CHICAGO BEARS

"Field & Fairway is perfect to topdress before or during rains if you need to dry up areas for events. It provides a safe field for the athletes by preventing the surface from becoming muddy and destroying the turf."



CONSTRUCTING NEW FIELDS

To get your new sports fields off to a great start, begin by incorporating Turface into your native soil or sand-based mix. Visit www.turfase.com or call (800) 207-6457 to find your nearest Turface representative for all the details.

Rescuing Your Field with Turface

If the rains have already come and your field is a mess—it's not too late. Turface instantly absorbs water for a safer playing surface.

Apply Turface at a rate of 20 bags (1,000 lbs) per 1,000 sq ft, to dry up muddy areas and create a safer, stable playing surface. In areas with standing water, dump and rake as necessary to eliminate water and mud. (1,000 lbs per 1,000 sq ft = 20 bags per 1,000 sq ft)

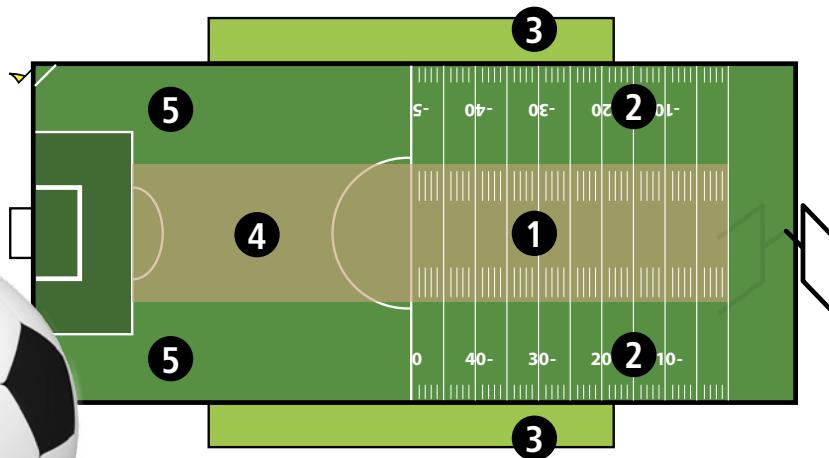


The Progressive Solution

Sometimes, a full-rate application of Turface isn't possible. That's why we've developed a solution that can be implemented over a two-year period to achieve comparable long-term benefits to our one-time application.

SCHEDULE

This application schedule is designed to apply seven tons twice a year, for two years (four total applications). Apply after aerification once in the spring, then again in the fall. Repeat the second year. These lighter, more frequent applications—if diligently adhered to—provide outstanding protection for years to come.



FOOTBALL FIELD

- 1 Between hash marks: 100 bags*
 - 2 Hash marks to sidelines: 60 bags* on each side
 - 3 Sidelines: 10 bags* on each side
-
- ### SOCcer FIELD
- 4 Middle third of field: 120 bags*
 - 5 Side two-thirds of field: 80 bags* on each side

Kevin Yeiser

DIRECTOR OF GROUNDS AND ATHLETIC FIELDS,
LEBANON VALLEY COLLEGE

“We faced hurricane conditions on the football field at LVC, but still managed to play a game on a safe surface as a result of our preparation with Field & Fairway.”

APPLICATION RATE CONVERSIONS

$$0.375" = 1,100 \text{ lbs per 1,000 sq ft} \quad 0.25" = 730 \text{ lbs per 1,000 sq ft}$$
$$= 22 \text{ bags per 1,000 sq ft} \quad = 15 \text{ bags per 1,000 sq ft}$$

*1 ton = 40 bags of Turface



Tips for the Year

No matter what time of the season it is, there's always something you can do to improve the health of your field. This calendar should serve as a handy, month-by-month guide for sports turf maintenance.

Please note: Field & Fairway™ is recommended for native soils; Profile™ Greens Grade™ is recommended for sand-based root zones.



Cool Season Grass Recommendations

Kentucky Bluegrass/Perennial Ryegrass Field, Native Soil Root Zone

MARCH-MAY

- » Core aerify
- » Fertilize
- » Overseed
- » Topdress with Field & Fairway at a rate of 500 lbs per 1,000 sq ft

MAY-JUNE

- » Spot seed
- » Fertilize

JUNE-AUGUST

- » Apply post-emergent weed control as needed
- » Apply fungicide applications as needed

AUGUST-OCTOBER

- » Mow and line weekly for games
- » Fertilize

SEPTEMBER-NOVEMBER

Pregame preparation includes:

- » Mow
- » Spot seed thin areas and between hash marks
- » Apply Field & Fairway if rain is in the forecast

After each game, don't forget the following:

- » Replace divots
- » Spot seed
- » Clean up debris
- » Irrigate

OCTOBER-NOVEMBER

- » Heavy core aerify
- » Fertilize
- » Topdress with Field & Fairway at a rate of 500 lbs per 1,000 sq ft



Warm Season Grass Recommendations

Bermudagrass Field, Sand-Based Root Zone

JANUARY

- » Take soil samples

FEBRUARY

- » Fertilize ½ lb nitrogen per 1,000 sq ft

MARCH

- » Apply pre-emergent for grassy weeds

APRIL

- » Fertilize ¾ lb nitrogen per 1,000 sq ft, 50% slow release

MAY

- » Fertilize ¾ lb nitrogen per 1,000 sq ft, 25% slow release
- » Core aerify with ½" tines
- » Verticut (twice)
- » Topdress with Profile Greens Grade at a rate of 500 lbs per 1,000 sq ft

JUNE

- » Fertilize 1 lb nitrogen per 1,000 sq ft
- » Apply Insecticide

JULY

- » Fertilize 1 lb nitrogen per 1,000 sq ft
- » Core aerify with ¾" tines
- » Verticut (twice)
- » Topdress with Profile Greens Grade at a rate of 500 lbs per 1,000 sq ft

AUGUST

- » Fertilize 1 lb nitrogen per 1,000 sq ft, twice per month

SEPTEMBER

- » Fertilize ¾ lb nitrogen per 1,000 sq ft, weekly
- » Mow daily

OCTOBER

- » Fertilize ¾ lb nitrogen per 1,000 sq ft, weekly
- » Aerify with ¼"-½" tines
- » Topdress lightly with Profile Greens Grade
- » Apply pre-emergent and post-emergent for winter weeds

NOVEMBER

- » Foliar feed and increase potassium levels

DECEMBER

- » Foliar feed and increase potassium levels

Tips from the Pros

The Ohio State University sports turf specialist Pamela Sherratt and Chicago Bears groundskeeper Ken Mrock have several keys to creating healthier, safer fields.



Pamela Sherratt's Tips

MOWING

No more than $\frac{1}{3}$ of the leaf tissue should be cut off at any one mowing.

- Mowing increases turf density—so fields should be mowed as often as time and budget will allow.
- Regularly sharpen mower blades or reels.
- Clippings should not be collected.

AERATION

- Fields should be aerated when the turf is growing most actively.
- Do not aerate in hot weather.
- Aerate when soil is moist but not wet.

FERTILIZATION

- Nitrogen (N) will produce leaf growth and color.
- Phosphorus (P) aids seed germination and seedling establishment.
- Potassium (K) aids stress tolerance (e.g. traffic and cold).
- Conduct a regular soil test to check fertility status, especially P and K levels.

IRRIGATION

Cool season turfgrass sports fields can go into dormancy in summer if there is no supplemental irrigation. Fields can stay in a dormant state for several weeks and recover adequately.

- If there is supplemental irrigation (automatic system, rain train or water cannon), it is not uncommon for fields to be over-watered. This results in soggy playing conditions leading to compacted soil.
- Aim to apply 1 to 1½ inches of water a week. Ideally, water should be applied in two increments to avoid run-off and move water deep into the rootzone.

OVERSEEDING

Overseeding will produce the best results if done in conjunction with coring and a fertilizer application. Once all three practices have been done, drag the field and irrigate if possible.

- Seed-to-soil contact is necessary for germination. Seeding into bare ground or thin areas will show better results than seed broadcast into a dense stand.
- Seeds will not germinate without moisture, so watering lightly is critical in the first few weeks.
- Seed in at least two directions to avoid poor coverage and striping.

Ken Mrock's Tips

AERATION

Seed that germinates in aerification holes will have crowns set slightly below ground, providing extra protection for the turf.

- Aerify early in the spring.
- Overseed at an aggressive rate.
- Topdress the field with Field & Fairway.TM
- Lightly drag everything in, allowing holes to act as turf plugs.

FERTILIZATION

An application of fertilizer between Thanksgiving and Christmas prepares the turf to come out of dormancy in the spring.

- Apply spring fertilizer only AFTER the turf flushes with natural spring growth.
- Premature application forces an early flush and leaves the turf with no food.

OVERSEEDING

Begin overseeding before the season starts. This gives the seed an opportunity to germinate with no traffic.

- Continue a light seeding weekly during the season—especially in high-traffic areas.
- Seed after light aeration, spiking or let the players cleat in.
- Not all seed will survive, but the density will be greater.

TOPDRESSING

Protect turf in the fall and winter from rain game situations.

- Topdress with Field & Fairway at aggressive rates prior to anticipated rain games.
- If unexpected rain occurs, apply Field & Fairway on the field as soon as possible to dry and firm the playing surface.

IN THE GROUND

Maintain excellent turf: Incorporating Turface® into the soil of your natural grass fields reduces compaction and improves water- and air-holding capacity at the root zone.

ON THE GROUND

Improve field safety and stimulate recovery: Adding Turface to water-soaked fields instantly absorbs excess moisture.

BY YOUR SIDE

The Turface network of professionals can help you every step of the way, with information and tips on products, procedures and best practices.



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