Synthetic Turf Maintenance:
Sports Turf Managers Needed
STMA Conference 2020
West Palm Beach, Florida

- Turf Managers Needed
  Knowledge
  Skills
  Transferable
  Applicable
- Understand System
  Fiber & infill
  Maintenance purposes
  Usage & maintenance
  Interpret appearance
- Maintenance
  Regular
  Specialized
- Shadow
  Influence
  Procedure
  "Experts on the Field"

Sports Turf Managers Needed

"... I believe that many of the same wear patterns and basic rules of natural grass management also apply for synthetic turf."
Milo George
athleticmanagement.com, January 29, 2015

"If you give it the same love and attention as grass, it will last and look great."
David Rush
Kent State University

Synthetic System

- The success of the synthetic system is predicated on the viability of the infill – fiber relationship.
- Protect & preserve the infill depth and cleanliness
  "Keep the amount of infill (depth) consistent throughout the field"
  Tad Dunn, Southern Illinois University

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Purposes of Maintenance
What we need to accomplish
• Safety
  Protect users
• Cleanliness/health & Longevity
  Preserve investment
• Playability
  User experience
  Community asset (financial & political)

“Regular maintenance should be based on the amount of use, the type of use...”
Milo George
athleticmanagement.com, January 29, 2015

Amount of use
Intensity of use

“...the area on which the field sits...”
Milo George
athleticmanagement.com, January 29, 2015

Vegetation
Animals/Insects
Debris/wind
Runoff

“...and the time of year.”
Milo George
athleticmanagement.com, January 29, 2015

Season
Moisture
Temperature

Usage vs Maintenance

Usage hours increase maintenance dates become more frequent.

Interpreting appearance

“Excessive wear shows up much more slowly with synthetic turf than natural grass, so by the time you see the problem in synthetic turf, there’s not much you can do.”
Milo George
athleticmanagement.com, January 29, 2015
Interpreting Appearance

- Learn by observation
  - Regular inspection/interaction (shadow principle)
  - Loose fibers
  - Seam visibility
  - Ridges/valleys

Maintenance

- Keep clean
  - Litter, leaves, seeds, gum
- Safety
  - Fliers, children, animals
- Playability
- DO NOT over maintain
  - Fiber break down
  - Lose infill
  - Hardness
  - Dull appearance
  - Decrease life span

Maintenance Equipment & Tools

- Broom
- Sweeper
- Magnet
- Vehicle
- Carpet rake
- Spaghetti spoon
- Gum freeze spray
- Blower
- Tube sack/bucket

Inspect

- "Walk the grounds regularly, keeping a keen eye out to identify problems."
  - David Nash
  - Kent State University

Clean

- Daily
- Litter
- Leaves
- Seeds
- Gum
- Foreign debris
- SIGNAGE
Wear areas
- Inspect wear areas
- Rake infill back in
- Add infill to wear areas
- Work in to fibers

Broom
- Broom redistribute infill
  - smooth surface
  - alternate direction
  - w/carpet grain (reverse)
  - 45 degree angle
  - after adding infill
  - Not when wet

Broom Pattern
- No heavy down pressure
- With seams
- Angles
- Reverse directions
- Alternate starting points
- End at start position
- Change pattern regularly

Magnet
- Bobby pins
- Screws, bolts, nuts
- Snaps
- Safety pins
- Cleats

Sweeper vacuum
- Remove debris from inside turf
- Lint (bio: hair & skin)
- Solid objects
- Rejuvenate infill and fibers
- Soften turf
- Less frequent application
- With seams
- Slow travel speed
- Empty hopper frequently

Add infill

“On average, an athlete or end user will carry off two to three pounds of infill material during a playing season.”

Jim Cornelius
sportsturfonline.com, June 30, 2016

“If it was an all rubber system, you’d be installing rubber only. If it was a sand/rubber mix field, you would install the material, pre-mixed.”

Darren Gill
FieldTurf

- Daily in wear areas
- Seasonally
- By hand
- Top-dresser

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Infill Depth Measurements

Specific areas
Random measuring in area
Record

- Set rod down to the backing
- Read the depth

G-Max

- Initial testing (baseline)
- Annual (independent)
- Record

Annual Service

- Assurance policy
- Independent critique of field
- Service
  - Impact
  - Infill depth
  - G-max
  - Sweep – vacuum
  - Report

Repair

- Remove infill
- Cut carpet
- Tape edges
- Seam tape
- Glue
- Close
- Weight seam

Synthetic Turf Record

<table>
<thead>
<tr>
<th>Month</th>
<th>Day</th>
<th>Date</th>
<th>Task</th>
<th>Product</th>
<th>Amount</th>
<th>Who</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Daily maintenance (what, product used, sweep, broom, etc)</td>
<td>Usage</td>
<td></td>
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<td>Usage</td>
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</tr>
</tbody>
</table>

Daily maintenance (what, product used, sweep, broom, etc)
Usage
Repairs
Infill depths
G-max
Shadow Principle

The quality of a landscape is directly correlated with how often the caregiver’s shadow falls on it.

“Solicit feedback from coaches and players on playing conditions of the turf.”
Ted Dunn
Southern Illinois University

“Work with your team and make sure everyone is on the same page. Listen to your coaches and work with them.”
David Rush
Kent State University

Maintenance
Be Proactive

“Start preparing for the (2003) Super Bowl 20 minutes after the bowl game finished.”
Steve Wightman

“IT is a process, Keep up on it.”
David Rush
Kent State University

Sports Turf Managers Needed

“However, I believe that many of the same wear patterns and the basic rules of natural grass management also apply for synthetic turf.”
Milo George (athleticmanagement.com January 15, 2015)

Knowledge
Skills
Experts on the field

Questions & Answers

Knowledge
Skills
Experts on the field
Repair: glue

- Remove infill
- Repair
- Glue
- Reseat

Repair: refill

- Repair infill
- Add infill
- Rake in

Replacement

- Remove carpet
- Glue Velcro
- Glue Velcro to panel
- Panel down