

ASBA  2024

ASBA TECHNICAL MEETING & TRADE SHOW
DECEMBER 3-6, 2024 | ORLANDO, FLORIDA

Synthetic Turf Maintenance & Impact on Longevity

Bobby Killion, Arthur Eddy, Tom Jones, & Milo George



WHO WE ARE:



Bobby Killion

- VP Operations, Paragon Sports Constructors
- 20+ years of construction experience
- 10 Years in Sports Construction
- Oversees PSC Operations

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WHO WE ARE:



Tom Jones

- VP Complex Management, FC Dallas
- 20 years of field complex management experience
- Oversees maintenance, management and programming at FC Dallas Stadium & MoneyGram Soccer Park

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The ASBA logo consists of a stylized blue and green shape resembling a sun or a field, with a yellow sunburst above it.

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WHO WE ARE:



Arthur Eddy

- CEO, Replay Maintenance
- 20+ years of athletic surface design experience
- Runs a specialized maintenance service for 100s of northeast fields

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WHO WE ARE:



Milo George

- Owner, PSFS / TurfTecs
- Provide proprietary Synthetic Turf Maintenance Services
- Experience in turfgrass & synthetic turf services
- Offers consulting, testing, renovation & installations of synthetic turf fields

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GOALS FOR DISCUSSION

- What is a “good” maintenance program?
- How do each of the program’s processes improve longevity? Why?
- What equipment works best for owners regarding routine maintenance?
- How can we quantify and track maintenance results?
- What can be done to get back on track if the data shows unfavorable results?
- Why do longevity and safety go hand in hand when it comes to maintenance?



MAINTENANCE PROGRAMS

WHAT IS A “GOOD” MAINTENANCE PROGRAM?

- Team effort between owner & specialists
 - Grooming
 - Managing infill
 - Repairs
- Maintenance Best Practices
 - Owner vs Specialist activities
- Frequency



MAINTENANCE BEST PRACTICES

OWNER / “ROUTINE” MAINTENANCE

- Grooming with suitable brush to maintain infill & remove fiber debris
- Sweep to remove organic & foreign debris
- Monitor infill levels
- Spot dress high wear areas
- Use protective mats on high wear areas (batters’ box, pitching areas, etc)

SPECIALIST / “PERIODIC” MAINTENANCE

- Decompact infill via tine rake & mechanical brushing
- Magnet drag*
- Antimicrobial treatments
- Repairs to seams, inlays, & logos
- High wear replacements on bb-sb fields
- Safety & performance testing

(*) can also be done by owner if they choose



MAINTENANCE FREQUENCY

- Industry (manufacturers) moving to recommendation based on hours of use
- **Does the owner track their hours of use on the field?**
 - Answer may guide recommendation for frequency of routine owner maintenance
 - **Anything better than nothing!**
- Periodic maintenance recommendations?

YES

Hours of use

Per manufacturer recommendations

NO

glooms / month
or week

DOES MAINTENANCE IMPROVE LONGEVITY & WHY?

- Grooming
 - Removes debris & minimizes build-up in system
- Managing infill
 - Maintains consistency
- Repairs
 - Address early
 - Reduce severity & number of repairs



EQUIPMENT FOR OWNER MAINTENANCE

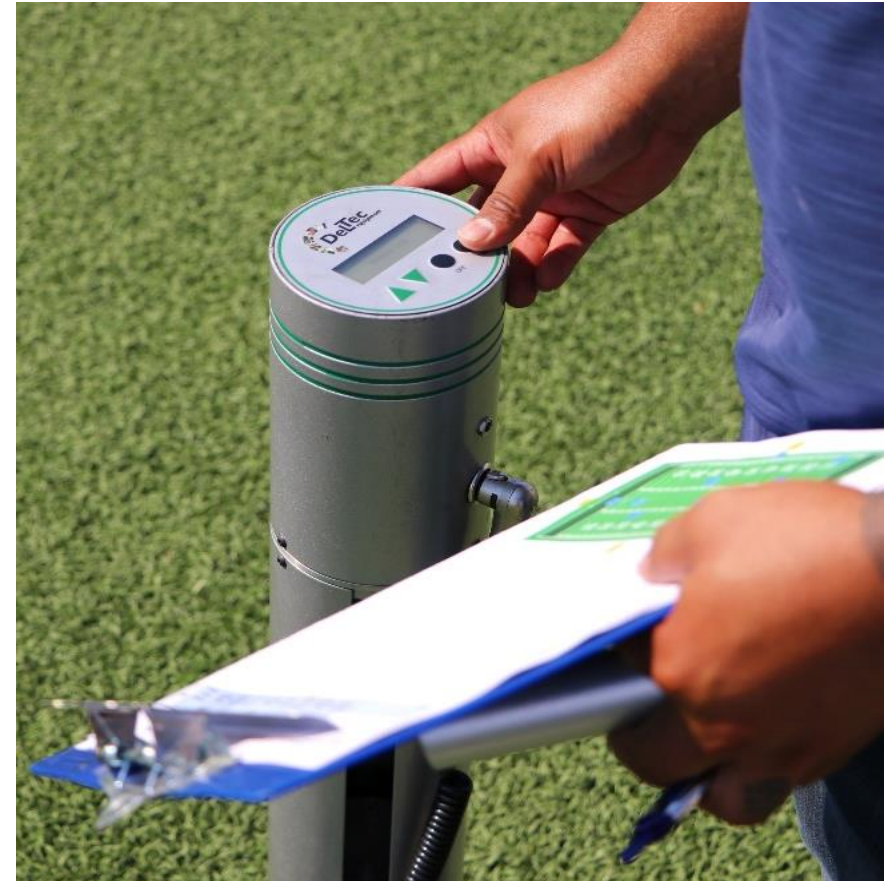
- Sweepers
- Groomers
- Groomer/Sweeper Combos
- Tine rake?
- Magnet drag?



TESTING + MAINTENANCE

HOW CAN WE QUANTIFY & TRACK RESULTS?

- Testing...
- What tests should be done?
- How frequently should testing be done?
- What role does testing play in maintenance?



UNFAVORABLE RESULTS: GETTING BACK ON TRACK

- Remediation:
 - Additional deep grooming
 - Top dressing with infill
- When is remediation not an option?

Location	Drop 1	Drop 2	Drop 3	Avg. GMAX
1 End Center Goal	214	229	233	231
2 10 yd, Left of Hash	204	215	216	216
3 25 yd Hash Line	203	214	199	207
4 50 yd Center of Field	195	211	211	211
5 25 yd, Left of Hash	170	187	191	189
6 12 yd Center	181	205	209	207
7 50 yd Coaches Box	182	198	201	200
8 35 yd b/w Hash & Number	185	199	198	199
9 6' from Goal Line to back of EZ	174	186	188	187
10 6' from back of EZ to Goal Line	212	227	229	228
# FIELD AVERAGE	192	207	208	207

REMEDIATION

- Fiber **NOT** breaking
- All fields <6 years old
- All fields receive annual maintenance. Owner maintenance unknown (unlikely or very limited).
- Process:
 - Deep groom entire field w/ tine rake & mechanical brushing to decompact infill & “loosen” fibers
 - Top-dressed fields with approx. ¼” rubber across surface
 - Spread rubber with laymore & finish groom with static brush
 - Re-test upon completion to verify results

	GMAX AVG. BEFORE	GMAX AVG. AFTER	CHANGE
FIELD 1	175 G	154 G	- 21
FIELD 2	171 G	154 G	- 17
FIELD 3	174 G	151 G	- 23

NO REMEDIATION

- Excessive broken fiber
- Surface unable to withstand top-dressing
- Without additional infill, remediation not possible to bring field back within GMax guidelines
- Owner had to replace field



WHY DO LONGEVITY & SAFETY GO HAND-IN-HAND?

- Maintenance is a huge factor in both
- Keeping proper infill depth and distribution protect the fiber from wear
- Regular testing monitors safety & performance
- Proactive monitoring & remediation vs reactive replacement



WHY MAINTENANCE MATTERS

	Target Range	District A	District B
GMax	<165	207	150
Vertical Deformation	4 – 11 mm	4.4 mm	6.9 mm
Rotational Resistance	25 – 50 Nm	34.9 Nm	49.3 Nm
Infill Depth	40 mm (for specified system)	29 mm	32 mm
Annual Test/Maintenance	n/a	No	Yes
Annual Maintenance Actions	n/a	n/a	Periodic top-dressing Regular deep groom/decompaction
Extended Life Expectancy	n/a	No	Yes – fields installed 12 years before replacement

- 2012 installations = **9-year-old fields** in neighboring districts
- 2.25” Monofilament with sand/rubber infill no pad
- Same designer, Same Performance Spec, different turf manufacturer



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AUDIENCE QUESTIONS?

