



# Hockey facilities workshop

Delhi 01/11/2018

## Hockey turf maintenance





A hockey turf field is a complicated piece of engineering that is designed to have the sports characteristics required for the games to be played on it; provide a safe playing environment for the players using it; withstand the wear and tear of normal use and the various climatic conditions it will be subjected to.

Not surprisingly such a demanding set of requirements means the playing surface needs maintaining; whilst a synthetic turf surface will sustain much greater levels of use than a natural turf field they are **NOT MAINTENANCE FREE** and it is very important that the surface is maintained correctly from the first day it is used and therein after throughout its life.

## Some facts

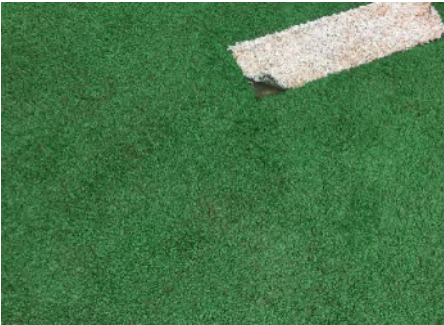
- No surface is maintenance free
- Poorly maintained surfaces will not perform as players expect
- Failure to maintain will invalidate the manufacturer's warranty
- Poorly maintained surfaces are a cause of accidents. Increasingly, injured players are seeking compensation



# Typical maintenance issues



Weed & moss growth, leaf litter & rubbish

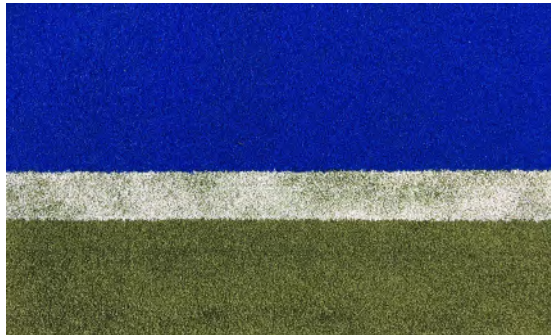


Carpet joint & line failures



Dust, silt & surface contamination, leading to drainage problems

## Algae growth



Algae will make the pitch:

- unappealing to players
- slippery & hazardous
- a possible source of infection to players





Carpet & line movement, wrinkles

## Calcium carbonate (limescale) build-up





Carpet wear & poor repairs



# Maintenance solutions

Maintenance procedures should be designed to ensure the:

- Playing surface provides a **SAFE** environment
- Playing surface retains **GOOD** playing characteristics
- Surface drainage is maintained throughout the life of the surface
- Field looks attractive and well cared for
- The **life of the surface is maximised**

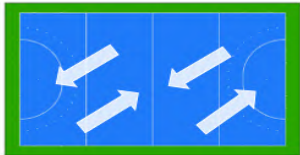
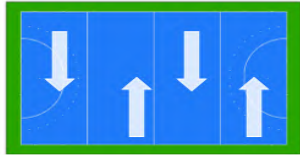
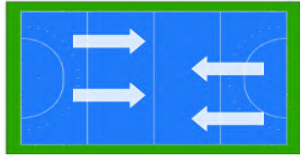
**On a daily basis,** remove food, general litter and any bodily fluids (blood, etc.) using a suitable disinfectant. Remove any surface stains (from drinks, or maintenance equipment, etc).

**On a weekly basis,** make a visual examination of the surface for seam or line markings failures. Repair any failures immediately. On sand dressed or filled/ multi-sport surfaces, top up infill levels on penalty corner spots and other high use areas

**At least weekly,** brush the surface to groom the carpet pile and redistribute any displaced infill remove detritus. Remove dirt, dust and leaf litter - do not let it sit on the surface.

**On at least a monthly basis,** keep a close watch for algae invasion on unfilled and sand dressed pitches, especially in warmer climates - take early action on algae, moss, weeds, etc.





Brush the carpet pile to prevent it flattening excessively.

For dressed and filled hockey turfs ensure the infill is kept evenly distributed at the correct depth

Alternate the direction of brushing to ensure the pile does not develop a directional effect

**Remove leaf litter, food, spillages regularly so they do not start to decay and become ingrained in the pile of the hockey turf**

**Leaves** can be best removed using an “Aussi-Sweep” drag mat or leaf vacuum

**Chewing gum** can best be removed by using either ice or an aerosol to freeze the gum, which can then be chipped or broken off the turf fibres. If gum has been smeared across fibres, peanut butter will soften and breakdown the gum so that it can be wiped off.

**Metal objects** can be picked up by a magnet attached to the grooming and brushing equipment.

**Weeds** are easily removed by hand if the infestation has not become too excessive. Treatments are also available.





## Algae - control



Manual power washing does not really work, it is slow and merely moves the dirt from one area to another

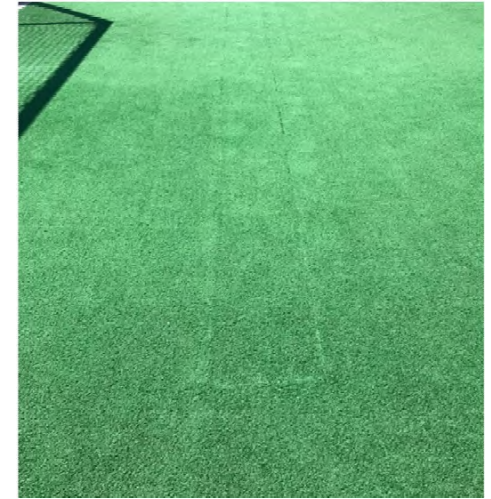


Chlorine based algaecides can attack and weaken the plastics from which the hockey turf carpet is made. **They should only be used if they are approved by the hockey turf manufacturer.**



Deep cleaning using high pressure water or air jets and a powerful vacuum to remove the dirt

## Joint repairs – carpet patching



Regularly check all inlaid lines and carpet joints. Repair failures as soon as they are found – they will only become a bigger problem if left. Patching worn areas is possible – but matching new and old carpet can be a problem.

# Other considerations

## Goal posts can kill



Ensure they are always securely anchored in accordance with the manufacturer's instructions.

Regularly inspect the goals posts to ensure there are no sharp protrusions, finger trap points, torn nets, etc.



- **Lighting** – maintain at least annually. Check lamps are still correctly aligned, lens are clean and any failed components are replaced
- **Irrigation** – service annually. Ensure water canons / sprinklers are still correctly aligned. Ensure storage tanks and pipework are not contaminated with algae
- **Fencing** – ensure mesh is attached to posts and cannot be a hazard to players running into it
- **Drainage systems** – ensure outlets are not blocked. Use drain rods to ensure drains are not obstructed

# Maintenance logs



- Every field should have one
- Keep it up to date – the surface warranty depends on it



Educate the players



## REMEMBER

Failure to maintain the playing surface in accordance with the manufactures' instructions will not only reduce the enjoyment of the playing experience; it may increase the risk of players being injured; will probably shorten the life expectancy of the surface and ill certainly invalidate any warranty offered by the surface manufacturer. It is therefore in your interest to maintain the surface correctly.

As a guide - 1 hour's maintenance for every 10 hours play

**Be proactive & protect your investment**

# Sinking funds

The term 'sinking fund' refers to the financial savings that the venue has set aside over a number of years to maintain its facilities to a high standard. In particular, the hockey turf carpet (and floodlights) only have a limited shelf-life before the facility operator needs to think about resurfacing and/ or replacing them, and this will cost a significant sum of money.



	Budget costs (rupee)*
Lift existing carpet and dispose	1,300,000
Shockpad remediation	1,300,000
Supply and install new hockey turf surface	18,000,000
Total replacement cost based on 2018 costs	20,600,000
Life expectancy	10 years
Interest rate	1.5%
Annual contribution	1,924,744
Weekly contribution	160,395

\* For illustration purposes only

If you have questions contact us at [facilities@fih.ch](mailto:facilities@fih.ch)

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