# GROUNDS & NATURAL TURF IMPROVEMENT PROGRAMME

Technical Resource.

# PQS Assessment Description

## Length of grass:

Maintaining the correct mowing height encourages 'tillering' (formation of new shoots and the plant base), provides suitable ball roll without hindrance from long grasses. If cut shorter the plants become stressed and weed grasses are encouraged in addition to increasing likelihood of an uneven surface.

### **Total grass cover:**

Loss of grass cover results in poor muddy conditions, increased compaction leading to waterlogging. If not remedied during close season renovations weeds and weed grasses proliferate exacerbating poor surface conditions.

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## **Desirable grasses:**

Dwarf Perennial Ryegrass (DPR) is the chosen grass species in all football applications. Speed of germination and establishment, tough, hard wearing with speedy recovery and vigorous rooting make it the ideal species. Any re seeding operations using DPR will contribute to raising the composition of desirable grasses.

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# **Undesirable grasses:**

Annual meadow grass (AMG). This grass type, though the most common in the UK is considered a weed grass in sports turf. Shallow rooting with minimal disease and drought tolerance the sward is easily kicked out by players. Being an annual the grass dies back during the cooler months leading to a loss of sufficient grass coverage. A propensity to produce thatch as the grasses die back.

#### Weeds:

Weeds compete with grasses for space and nutrients in the soil. Weeds ingress can be reduced by correct mowing regimes and measures to encourage good, strong healthy grass growth. Allied with aeration and compaction relief.

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#### Pests and disease:

Worms conduct a valuable contribution to plant and soil health, breaking down excess organic matter, creating pore spaces and channels with the soil profile improving ingress of air, water and nutrients. Sadly this benefit is often negated by the detrimental effect of worm castings at the surface where they are easily smeared by foot or machine traffic creating muddy conditions, an uneven playing surface, smothering grasses and providing an ideal environment for weed seeds to germinate.

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#### Thatch:

Thatch (dead and decaying plant material at the turf surface) measured 10-15mm principally on wings and areas receiving less wear. Thatch acts like a sponge, holding water and reducing its ability to pass through the soil profile. Shallow rooting and surface compaction ensue. Compounded by the high meadow grass content.

## **Root depth:**

Shallow roots will result in the grasses being kicked out of the surface during the winter period, 100mm is the minimum to ensure good grass cover, and this can be achieved with an aeration programme.

# Peak soil strength PSI:

Compaction is the single greatest contributing factor in the underperformance of winter games pitches. The lack of macro pore spaces limits the ingress of water, air and nutrients denying the plant access and encouraging shallow rooting grasses, together with the production of thatch. Compacted pitches quickly become waterlogged resulting in postponed matches or played muddy conditions. Unless compaction issues are addressed consistently other actions taken to improve pitches will always be of limited value.

## **Growing medium:**

A consistent stable rootzone ideally of a stone free sandy loam nature, is the ideal. Providing drainage capacity more than 10mm per hour.

## Pitch levels/evenness mm:

Surface levels outside of approved parameters adversely affect ball roll, attract standing water increasing grass loss and compaction. In extreme cases can contribute to a lack of player safety.

#### **Presentation:**

Pleasing aesthetic qualities with a smooth, even striped surface enhance player and spectator appreciation.

#### Goals:

Goals should comply with BS 748 in respect of construction and installation and anchorage.

http://www.thefa.com/get-involved/goalpost-safety

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# **Post-match divoting:**

Helps to restore surface levels, maintain surface stability and keep grass cover.