

Natural Turf FAQ's

1. How many hours of use per week can a natural turf pitch support?

It is difficult to predict with any accuracy the likely number of hours a natural turf pitch can support as this depends on local weather conditions, schedule of use, age of participants and the quality of the on going maintenance, however Sport England considers the following to represent a reasonable estimation - Refer to Natural Turf for Sport Design Guidance Note (Table 1) which can be downloaded from:

http://www.sportengland.org/facilities_planning/design_and_cost_guidance/natural_turf_for_sport.aspx

Table 1. Estimated usage levels	
Drainage status	Adult weekly use* (hours)
Undrained	Under 2
Pipe-drained	2 - 3
Pipe-drained with mole drains	2 - 4
Pipe-drained with sand grooves	3 - 6
Pipe-drained with slit drains	3 - 6
Pipe-drained with topsoil and drainage layer	3 - 6
Pipe and slit drained	3 - 6
Pipe-drained with suspended water table	4 - 6

*The usage levels shown will increase by approximately 50 % for players 15 years of age and under.

2. What are the standard dimensions of rugby league, rugby union, cricket and football pitches?

Sport England's publication entitled 'Comparative Sizes of Sports Pitches and Courts' can be downloaded from:

http://www.sportengland.org/facilities_planning/design_and_cost_guidance/other_design_guidance.aspx

3. Is there a recommended pitch orientation for natural turf pitches and grass tennis courts?

With respect to pitch orientation, Sport England has published guidance on optimum pitch orientation for a range of sports. For winter games pitches, the limits of orientation are 285° and 20°, and for grass court tennis the limits are 325° and 45°. For further details see page 9 of the Natural Turf Design Guidance Note which can be downloaded from

http://www.sportengland.org/facilities_planning/design_and_cost_guidance/natural_turf_for_sport.aspx

4. We are planning to construct a range of grass pitches. Typically, how much does it cost per year to maintain a pitch and what resources are needed?

Sport England has developed Budget Cost sheets for a range of typical playing field projects. These can be downloaded from:

http://www.sportengland.org/funding/protecting_playing_fields/budget_costs.aspx

With respect to resources required, a summary is provided in Appendix 5 of Sport England's Design Guidance Note entitled 'Natural Turf for Sport' which can be downloaded from:

http://www.sportengland.org/facilities_planning/design_and_cost_guidance/natural_turf_for_sport.aspx

5. Our pitches are poorly drained and matches are often called off in the winter. What is the most cost-effective way of draining a pitch and how much does it cost?

The most appropriate way of draining a pitch will depend on a range of factors such as soil type, water table depth and available budgets, and so it is recommended that advice is sought from a competent natural turf pitch consultant.

Natural Turf FAQ's continued

5. Continued

A summary of the range of options available, and the associated advantages, disadvantages and costs involved is provided in Table 1 of Sport England's Design Guidance Note entitled 'Natural Turf for Sport' which can be downloaded from:

http://www.sportengland.org/facilities_planning/design_and_cost_guidance/natural_turf_for_sport.aspx

6. Can a new cricket square be constructed using topsoil?

Most new squares are constructed using proprietary cricket loams. Some cricket squares can be constructed using topsoil, however it is important to seek advice from a competent natural turf pitch consultant as the appropriateness of the topsoil will depend on factors such as its clay, stone and organic matter content and the way in which it shrinks or swells during wetting or drying. Further information can be obtained from the England and Wales Cricket Board who has published guidance on the construction, preparation and maintenance of cricket pitches and outfielders:

Recommended Guidelines for the construction, preparation and maintenance of cricket pitches and outfielders at all levels of the game - download the new TS4 document from:

[ECB Recommended Guidelines for the construction, preparation and maintenance of cricket pitches and outfielders at all levels of the game](#)

7. Following construction, how soon can natural turf pitches be played on?

The return to play following pitch construction varies depending on the nature of the construction works, when the works are carried out (i.e. spring, summer or autumn) and climatic conditions that prevail during the 'growing-in' period.

For winter games pitches, if works are carried out in the spring and strong grass development is achieved, it may be possible to commence play in the autumn but this cannot be guaranteed. For pitches sown in the autumn (e.g. September), play may not be possible until the following autumn. Cricket pitches generally take longer to establish and so it may be necessary to relocate for one or even two seasons.

8. How can we determine whether the performance of our pitches meets minimum acceptable standards?

The Institute of Groundsmanship, in consultation with selected National Governing Bodies has published Performance Quality Standards (PQS) for a range of sports. These constitute minimum acceptable standards for key parameters such as slope, hardness, pH, water infiltration rate, grass cover and broad leaved weeds. These provide an objective means of assessing the performance of pitches.

Reference should also be made to the various performance quality standards (PQS) for sports pitches on the Institute of Groundsmanship website:

<http://www.iog.org/train-education/Technical-Library/Performance+Quality+Standards/PQS+Database>

9. We have limited land available and therefore need to play both cricket and football on the same area. How can we minimise the impact of each sport on the other?

These situations will always be a compromise but consideration should be given to the following:

- a) Ensure that the area used for football is well-drained to reduce damage to the playing surface. This will allow the transition to a cricket outfield to be achieved with the minimum of renovations work at the end of the football season.
- b) Where practical, arrange for the first few matches (both cricket and football) to be played away to provide more time for renovation works.
- c) Where possible, arrange the pitch layout such that areas of most wear for football do not coincide with those for cricket. Where sufficient land is available, consider rotating pitch use.

Natural Turf FAQ's continued

10. What are the recommended flood lighting levels for pitches?

Generally, only Football and Rugby have natural grass pitches illuminated for match play, it is not recommended to play Hockey at competitive level on natural grass pitches under lights.

- Football - Minimum FA Standard for competitive play is 120 LUX Maintained Average Horizontal illumination level at a minimum Uniformity of 0.25 (Emin/Emax).
- Rugby - RFU Standard for competitive play is 200 LUX Maintained Average Horizontal illumination level at a minimum Uniformity of 0.60 (Emin/Eave).
- Bowling Greens - are occasionally illuminated to 200 LUX Maintained Average Horizontal illumination level at a minimum Uniformity of 0.60 (Emin/Eave).

BS EN 12193: 2007 Light and lighting; Sports Lighting is the European standard that deals with sports lighting to ensure good visual conditions for players, athletes, referees, spectators and CTV transmission and includes a selection of recommended lighting levels for principal sports.

11. How far apart should pitches be i.e. what is the minimum?

The minimum safety margin around pitches varies depending on the sport and the age of participants. Sport England's publication entitled 'Comparative Sizes of Sports Pitches and Courts' provides information on this and can be downloaded from:

http://www.sportengland.org/facilities_planning/design_and_cost_guidance/natural_turf.aspx

12. Can I put benches between the pitches and, if so, how far should the pitches be from the benches?

Benches can be located between pitches provided that the minimum safety margin appropriate to the sport being played is adhered to. The minimum safety margin around pitches varies depending on the sport and the age of participants. Sport England's publication entitled 'Comparative Sizes of Sports Pitches and Courts' provides information on this and can be downloaded from:

http://www.sportengland.org/facilities_planning/design_and_cost_guidance/natural_turf.aspx

13. If I put a fence between adjacent pitches, how far should the pitches be from the fence and what type of fence can I put up?

Any fence between adjacent pitches must adhere to the minimum safety margin appropriate to the sport being played, and should be constructed such that the risk of snagging participants is minimised. It is therefore recommended that proprietary sports' fencing is adopted. The minimum safety margin around pitches varies depending on the sport and the age of participants. Sport England's publication entitled 'Comparative Sizes of Sports Pitches and Courts' provides information on this and can be downloaded from:

http://www.sportengland.org/facilities_planning/design_and_cost_guidance/natural_turf.aspx

14. What are the minimum acceptable tolerances for surface levels on a school field if we mark an athletics track on it for the summer?

The minimum acceptable tolerance for surface levels on a playing field is a deviation no greater than 20 mm under a 2 m straight edge