

World-Class Soccer Fields Provide Own Challenges

By Tony Leach

In the wake of the World Cup, superintendents may wonder how world-class soccer fields are maintained and what they could learn from them. In truth, maintaining soccer fields isn't that different from maintaining any other high-impact turf in the public spotlight. That's certainly the case in England.

Professional soccer has been played in England since 1862 and is the national sport with a huge number of supporters. The popularity of the sport has grown over the past few years with the major soccer stars changing clubs for huge transfer fees and becoming national celebrities. English football is now dominated by European players with different, faster playing styles. Such expensive commodities have to be looked after carefully — injuries from a poor field are not acceptable.

Therefore, soccer requires a surface where the ball can run evenly across the surface without deviation or bounce and where players can run at pace without fear of leg joint, ligament or ankle injuries from an uneven or unstable surface.

The pitch also needs to have a healthy, vigorous grass able to withstand heavy wear-and-tear and be able to recover quickly from the effects of cleats.

In the United Kingdom, the soccer season begins in August and ends in May. Therefore, preparation starts in the late summer and will often involve the application of an iron-based fertilizer to toughen the grass and give it increased resistance to disease.

Irrigation will be required to assist the absorption of the fertilizer into the soil and to prevent scorching. Timing is important to ensure that the flush of growth coincides with the beginning of the playing season to establish the required turfgrass height of 1 to 2 inches. Once achieved, this length is maintained by topping the grasses with the

available mowing equipment. The erection of goal posts is left as late as possible to make mowing easier.

As the season progresses into the winter months and the soil becomes colder, wetter and more compacted, the surface must be kept open and free draining. Although the grass plants never stop growing, growth will slow considerably during the winter, resulting in the reduction of nutrient and moisture uptake and reducing the ability to resist stress factors such as wear and tear, frost damage and disease infestation. To keep the grass as healthy as possible, dethatching and aeration is carried out regularly.

Thatch removal carried out at the end of the summer will remove debris such as decaying grass clippings, stolons and rhizomes. Where large amounts of thatch are removed, the surface has to be cleaned with a sweeper if the de-thatcher does not have a collector.

There is a wide range of equipment available to carry out the important task of aeration to get air, water and nutrients down to the roots. On heavy soils it's unwise to use deep slitters after Christmas as the slits may open up as the drier, warmer weather approaches. Where there is severe compaction, it may be necessary to consider deep vertical-action aerators or the use of sub-soiling equipment.

Spring is the time to prepare for end-of-season renovation. It's important to be on the lookout for pest and disease infestations. Herbicide applications must not be left until too late into the summer and weeds must be caught before they have the chance to seed.

It's essential that there should be plenty of moisture in the soil and sufficient time for overseeding and the re-establishment of a dense field.

If a good aeration program has been carried out throughout the playing season, there should be no need for extensive spik-

ing. However, if this is not the case, the field must be spiked thoroughly to relieve surface and deep compaction problems. This is also the time to correct surface levels.

The field can be renovated in a number of ways, depending on the degree of wear. Lightly worn areas can be raked to form a seed bed, and a lime-free sand topdressing can be applied to the surface and worked-in after overseeding. Where extensive remedial work is necessary, then a loam topdressing will be required. Seeders are available which renovate the surface and apply the seed simultaneously.

To ensure successful establishment of the new seed an application of spring/summer fertilizer may be considered following soil analysis to determine any nutrient deficiencies. Mowing and aeration continue to keep the surface open and control any weed infestations even during the summer, when most soccer fields are closed.

Over recent years, climatic changes have led to wetter, warmer winters in the United Kingdom, bringing the groundskeepers further challenges and a greater need for improved surface and soil water drainage.

There has also been a steady increase in pest and disease infestations. In addition, there are ever more incidents of previously unknown virus and nematode infestations in the United Kingdom.

Ever-increasing demands are put on groundskeepers to provide first-class facilities for extended periods beyond the usual end of season and prior to a new season to accommodate preseason training and fitness regimes. This has resulted in seed companies researching new grass cultivars, and, in some cases, new species, to provide increased wear tolerance, disease resistance and earlier establishment at lower temperatures especially useful for late autumn renovations and repairs.

The United Kingdom has probably the longest soccer season and the greatest number of matches of any soccer-playing country. U.K. groundskeepers relish any challenge put before them.

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TURFGRASS TRENDS

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