

GRASS SURFACES IN THE URBAN ENVIRONMENT

Dr Tim Lodge

A couple of years ago I attended a one day conference of landscape architects, urban designers and planners. I was horrified to hear grassed areas described by one of the speakers as 'green deserts'. So I had to spring to the defence of turf which is a fundamental part of Agrostis' business...

Environmental benefits of grassed areas

Carbon

A grass surface is a big area of leaf that is photosynthesising. So it absorbs carbon dioxide and emits oxygen. Because grass clippings are normally returned to the soil, the net effect is that grassed areas take carbon out of the atmosphere and put it back into the soil.

Grass is able to fix carbon at a rate comparable to that of woodland. It is certainly able to fix more carbon than the mowers that cut the grass once or twice a week put out. Of course, not all grass needs to be cut that short that often; you vary the height and frequency of mowing to suit the purpose. So grassed areas clean and freshen the air and reduce net carbon emissions.

Wildlife

Grass doesn't always have to look like a bowling green. By varying the height and frequency of cutting, areas of longer grass can be created among more managed surfaces that enhance the aesthetic value of a place very considerably. They also promote species diversity. In effect, you can manage some areas as a hay meadow with all the potential for species richness that that can bring. Such areas also link other ecological communities and so act as wildlife corridors, crucial for the safe migration of many species.

Flood risk reduction

Because grass surfaces are established on soil they will temporarily store surface water and so can reduce flooding. Around 40 % of soil is actually free space. This can be either air or water or both. A soil beneath turf could retain up to 120 mm of water. Turf could therefore accommodate the water falling on a surrounding area as much as 5 times that of the grassed area itself for 20 mm of rain – a very substantial rainstorm.

Through ongoing technological development and the study of soils and drainage the turf industry is making great strides towards being able to attenuate even more surface water while maintaining healthy grass that is quickly useable after heavy rain and for all of the winter.

Air cooling

Because moisture is constantly released from grass leaves this has the effect of cooling air temperatures. This has long been recognised in the hotter parts of the world such as California where grasses are established *specifically* to cool the local environment.

Dust absorption

Grass areas will absorb dust particles; they simply become part of the soil. You don't have to sweep a football pitch as you do a road and a grassed area will accommodate as much particulate matter, such as that which emanates from diesel engines, as you care to throw at it.

Sociological benefits of grassed areas

Grassed areas of course provide space for sport and play which can be enjoyed by everyone. From kicking or hitting a ball about to organised team games, from jogging to tai chi, appropriately designed and maintained, easily accessible grassed surfaces provide a facility for all members of the community. Grassed areas therefore contribute greatly towards social cohesion in an entirely sustainable way.

Grassed areas give us a sense of open space that contributes greatly to people's feelings of well-being.

And of course, provided everyone has free and easy access to them, outdoor grassed sports facilities help to keep us fit and healthy.

That is why Agrostis are committed to the promotion of grassed areas in the heart of our communities.

AGROSTIS TURF CONSULTANCY LTD