Creating and maintaining robust, yet naturalistic looking pathways is a unique challenge, but recent trials at Marsden Park Golf Course show that PAS 100 compost can provide an environmentally friendly, effective and low maintenance alternative to more traditional methods of slope stabilisation.

Previous methods to stabilise the footpath on the slopes at the Marsden Park Golf Course in Lancashire had failed, calling for costly maintenance and leading to unsightly bare earth in areas where footfall was heavy. As a result, Walker Resource Management Ltd and the Sports Turf Research Institute were supported by WRAP to design, implement and analyse a trial to assess the benefits of using PAS 100 food derived and green compost, both as a straight infill material, and blended with sand glass (an aggregate made from recycled glass).

Twelve treatments – including a control plot – were applied to the separate sections of the path which was constructed using recycled plastic reinforcement grids. Some of these plots were then seeded with grass, while others were left to colonise naturally.

Results showed that both food derived and green composts far outperformed the control area both when seeded and left bare. When seeded, the food derived compost achieved a maximum mean grass cover of almost 90 per cent during August and September over a two year period, with green compost close behind at 85 per cent. By comparison, the sand control plot recorded just 46.7 per cent. Over time, the composts blended with recycled glass aggregates also proved the most resilient against compaction, even when faced with extreme weather conditions in 2009.
**Installation**

When installing the footpath, the site was excavated to remove topsoil, subsoil and rubble, using a mini digger. A sub-base layer of crushed, recycled aggregate was created and compacted using a vibrating plate before stabilisation grids were laid onto the sub-base and connected with each square grid. Blending of composts and glass sand was carried out and applied by hand, then tapped down with a plank. Forty-eight hours later, the grids were seeded as appropriate.

Despite extreme weather conditions throughout the two year period of the trial, the compost proved itself more than capable of supporting vegetation growth, with root growth helping to stabilise the infill material. Compost-based grass pathways offer a robust surface that enables access for pedestrians, vehicles and wheelchair users and can also be integrated into a sustainable urban drainage system to manage surface water.

At a cost of £17 per m\(^2\), the compost blend is both affordable and adaptable. Where a shallower geogrid product is required, a reduction in cost will be achieved by obtaining a less structurally important and therefore cheaper product. Other less expensive recycled aggregate material can also be used to blend with compost. Environmentally, each element of the system can be manufactured from recycled materials – from recycled plastic in the geogrid framework, to recycled aggregates and PAS100 compost. Overall, the carbon savings achieved result in a significantly lower carbon impact than equivalent virgin materials, while providing a superior, lower maintenance solution.
This case study is one of a series of project that examines the use PAS 100 compost to stabilise slopes and reduce erosion.

For further information visit www.wrap.org.uk/farming_growing_and_landscaping where you can access:
- the Good Practice Guide;
- tools and guidance; and
- a range of other case studies.