

Compost socks put the brakes on soil erosion on engineered roadside slopes

Soil erosion can be problematic for a range of engineering projects such as road construction, which involve working with steep banks. However, trials show that PAS 100 compost can be applied as part of an integrated system to alleviate runoff and nutrient and sediment loss

Soil erosion can have an impact on a wide range of landscaping applications such as road embankments, construction and restoration sites, and river and canal banks. Experts within the UK have been exploring potential solutions and work has been underway to trial both the use of Compost Erosion Control Blankets (CECBs) – a layer of compost applied to the surface of the slope – and a filter media in the form of a compost sock, which is made up of a mesh filled with compost running across the slope. Both these techniques have been trialled extensively abroad and are included within Best Management Practice by the United States Environmental Protection Agency.

How did WRAP help?

The three-year WRAP funded project, based along the new A421 extension at Junction 13 on the M1 in Bedfordshire, was carried out in partnership with Cranfield University, Balfour Beatty and the Highways Agency. It monitored the rate of erosion, nutrient loss and storm water runoff from engineered slopes. Phase I employed 36 trial plots which assessed two depths of compost blanket, seeded and unseeded and the compost socks.



Compost trial plots on A421

How did WRAP help?

Phase 2

forward

Exemplar Case Study

page 1

The second phase of the project involved a larger scale field trial on a road cutting at the A421 widening site. Optimum performance was generated by a plot treated with compost socks, where in three out of four runoff events, runoff from the slope was reduced by 100 per cent. However, it was also noted that since the moisture content of soil underlying CECB remains significantly higher during dry spells than bare soil or geotextile treatments, the potential for vegetation establishment is high.

As the UK experiences heightened levels of extreme weather conditions and existing roadways are adapted to accommodate a greater number of cars, soil management will become increasingly important. The trials showed conclusively that compost socks used alone or in combination with Compost Erosion Blankets (CECBs) can be developed as a Best Management Practice technique for storm water management and erosion control on engineered slopes. However, application need not stop here, and has been demonstrated equally beyond general construction projects in the protection of waterways, for example .”



Erosion control site, A421

This case study is one of a series that examines how businesses are using PAS 100 compost

For further information visit www.wrap.org.uk/farming_growing_and_landscaping where you can access:

- the Good Practice Guide;
- tools and guidance;
- a range of other case studies; and
- xxxxxx

While steps have been taken to ensure its accuracy, WRAP cannot accept responsibility or be held liable to any person for any loss or damage arising out of or in connection with this information being inaccurate, incomplete or misleading. This material is copyrighted. It may be reproduced free of charge subject to the material being accurate and not used in a misleading context. The source of the material must be identified and the copyright status acknowledged. This material must not be used to endorse or used to suggest WRAP's endorsement of a commercial product or service. For more detail, please refer to our Terms & Conditions on our website - www.wrap.org.uk

[back : home](#)

**Waste & Resources
Action Programme**

The Old Academy
21 Horse Fair
Banbury, Oxon OX16 OAH

Tel: 01295 819 900
Fax: 01295 819 911
E-mail info@wrap.org.uk

Helpline freephone
0808 100 2040
www.wrap.org.uk

