

Recycling - The Proof is in the Product



INSET: The driving range prior to the use of a recycled plastic drainage system and, main picture, afterwards showing the dramatic results when the drainage system was introduced.

Bronnie Allen, Materials Sector Manager (Glass) at WRAP, explains what steps the organisation is taking to encourage greenkeepers to make the switch to recycled products.



We are all bombarded with advertising slogans offering 'a money back guarantee' or 'a free home trial' - tactics aimed at persuading people to try different products. However, unless consumers have had a strong recommendation from their peers, they are unlikely to make a firm commitment to switch. It is no different in the greenkeeping industry.

With so many products available, it can be tempting to just stick with what you know. However, doing so means that greenkeepers are not taking the opportunity to purchase recycled products that can deliver excellent performance benefits.

Looking around a golf course, there are many areas where recycled products can be used – bunker sand, top dressing, divot repairs, mulch, signage and temporary tees to name but a few.

Recycled products, made from everyday items such as glass, plastic, wood and organic material, are an excellent way for golf courses to demonstrate their environmental credentials without compromising performance characteristics or quality.

In fact, in many cases, recycled products have been found to perform better than traditional materials in comparative tests.

To spread understanding about the opportunities and benefits offered by recycled products, WRAP (the Waste & Resources Action Programme) has been working with a number of key industry bodies, such as BIGGA, to ensure that the facts rather than the myths about recycled products are reaching greenkeepers and Course Managers.

Spreading the word with BIGGA

During 2004, WRAP contributed to a series of regional environmental seminars, which have been an excellent way for BIGGA members to find out more about the range of recycled products available, as well as a way of speaking directly to WRAP about the work they are doing. Feedback from the seminars has been very positive.

WRAP also co-sponsored the 2004 BIGGA Golf Environment competition. The standard of competition entries proved that environmental issues are very important to many clubs and WRAP sends its congratulations to all the winners.

Over the next 12 months, WRAP will continue to work closely with BIGGA and its members in a drive to spread the word about recycled products.

To give greenkeepers the opportunity to see many of these recycled products for themselves, and get a feel for the benefits they can provide, WRAP is also exhibiting at the BTME Exhibition in January.



Recycled wood chip is an excellent choice for pathways.

Delivering tangible benefits

Proof of performance is critical to encouraging people to switch to recycled products and WRAP has been working closely with the Sports Turf Research Institute (STRI) and The R&A to demonstrate exactly how these products can bring real benefits.

STRI – trials of processed sand

In conjunction with WRAP, the STRI is currently undertaking trials comparing processed sand (derived from recycled glass) with conventional sand. To date, the findings have been excellent, showing that processed sand provides a good alternative to conventional sand for use in bunkers.

The natural angularity of the processed sand means it rests at a steeper angle, provides a firmer underfoot stability and reduced golf ball plugging on impact than many conventional sands. The second phase of trials is currently underway, testing a variety of mixes of processed sand with conventional sand for use in bunkers.

Commenting on the latest phase of the trials, Andrew Owen, Soil Scientist at STRI said, "By combining the slightly more angular grains of the processed sand with the paler coloured conventional sands, we should produce mixes which can still provide some performance benefits over many conventional sands, but have a toned down colour.

"The results from all the trials of processed sand for use in bunkers have been very promising and the obvious next phase of work should involve clubs incorporating processed sand on their courses.

"A relatively easy option for greenkeepers who wish to trial processed sand would be to try some in a practice bunker in the first instance – something which a number of golf clubs have already expressed an interest in. This way greenkeepers can get immediate feedback from their members without changing any aspect of their main playing course."

The STRI trials are due to be completed by March 2005 and the full results will be available from WRAP and STRI shortly after.

Best Practice Guidelines from The R&A

In early 2004, The R&A launched a website offering best practice guidelines for all aspects of golf course management and development. This website is soon to be updated with information from WRAP regarding the use of recycled products around the golf course.

The guidelines, www.bestcourseforgolf.org, have received very positive feedback from users and more than 850 clubs have registered from 72 different countries.

Steve Isaac, Assistant Director of Golf Course Management for The R&A, says, "The website provides the opportunity for clubs across the world to compare their own operations against the basic principles of best practice covering course, clubhouse and environmental management.

"Although many clubs already have their own environmental policies, these guidelines will help them to focus on what perhaps is missing. They are also making clubs sit up and take note of the environmental responsibilities they have.

"Making the decision to purchase recycled products is just one of the many areas where clubs can make a difference. As with any product, we would recommend a thorough investigation into the performance benefits. If clubs are satisfied with the quality and fitness for purpose, then environmental benefit should swing the decision in favour of using the recycled product, provided that the cost differential is within budget.

"Finally, seeing is believing. We encourage any greenkeeper considering making the switch to visit other clubs and share experiences of using recycled products."

Update from WRAP

As well as funding research and working with industry bodies, each of WRAP's material programmes is involved in activities designed to promote the availability and performance benefits of recycled products.



BAS PAS 100 Compost provides many nutritional benefits when spread as a top dressing on the fairways.



Processed sand, which is derived from recycled glass, is suitable for use in bunkers providing firmer underfoot conditions.

Compost - Product trials

WRAP has been instrumental in helping users to see for themselves the benefits of using composted products through demonstration trials. The most recent of these centres on the use of BSI PAS 100 composted material in the maintenance of sports and amenity turf grass.

The aim of the trials is to evaluate the performance of recycled compost against the materials currently being used. The trials will provide robust performance data to potential end users ensuring that confidence can be placed in the product.

Trials will be commencing in early 2005 and run through to October 2005, and will incorporate site visits so that greenkeepers can see for themselves how the compost is performing. When applied to a golf course, compost can provide many benefits such as improved regrowth in divots on tees and fairways and the suppression of turf diseases.

'Recycled wood - working wonders'

Making the switch to recycled products can be very easy to implement and a new campaign launched by WRAP will be promoting the benefits of using recycled woodchip in a variety of landscaping applications.

It is perfect for landscaping given its low maintenance requirements and ability to suppress weeds. For courses that have challenging steep inclines, the woodchip adheres effectively to slopes as it knits together well.

This is also beneficial for courses that are exposed to windy conditions, as the woodchip is not blown away as easily as traditional surfacing materials. The material also has the benefit of not sticking to the spikes of golf shoes.

Blending into the surrounding environment is a key criteria for new and existing golf courses. Recycled woodchip can help with this too, as it is available in a variety of colours, including light natural shades that highlight plant foliage.

Specialist products from recycled plastics

Recycled plastic can be used for a number of different golf course applications such as winter tees or artificial tees, signage and walkways and drainage products. Water logging can be a common problem on golf courses, especially within golf bunkers or along path edges.

One recycled plastic product that has been used very successfully on approximately 70 golf courses, including Loch Lomond and Royal Dublin, is Aquadyne. The recycled plastic acts as a capillary and effectively soaks up the water before releasing it gradually into drainage channels.

Minimum disruption to players is a key consideration for greenkeepers using a new product. These recycled plastic drainage products are very easy to install, can be used on small areas and do not require heavy machinery.

Recycled plastic can also be used to make other drainage products for the golf course, such as twin-walled drainage pipes from Delleve, which take advantage of the lightweight and robust nature of recycled plastic.

Right product, right time

There are many exciting updates to come from WRAP over the coming year and it is a great time for greenkeepers to think about making the switch to recycled products.

For further information about the many products available and the results of trials, please visit the WRAP website, www.wrap.org.uk.

The latest addition to the website will be the re-launched Glass pages which will feature pages on sports turf applications including golf course products and case studies.