



BIGGA members recently took part in a survey concerning the use of compost on golf courses. Here Tricia Scott, Research Analyst from the Waste and Resources Action Programme (WRAP) summarises your responses

It's a WRAP

As you will be aware, compost is produced from biodegradable organic waste such as garden clippings, grass cuttings and leaves as well as household kitchen waste.

The survey results show two in five of you make your own compost on site using grass cuttings and leaves collected around the course, and the mixes vary from 70% grass/15% leaves to 10% grass/80% leaves. One respondent mentioned using kitchen waste, while another uses seaweed and leaves and one clearly had his own special recipe: "grass, wood chip, cardboard, kitchen waste, dung. I look for a 40 % green/high N content".

Composting is a great way to recycle nutrients from green and food waste. It contains slow release nitrogen, potash and phosphorus, as well as trace amounts of magnesium and iron. Most of you who responded to the survey said you used your compost in flowerbeds as well as for turf top dressings and repair (in divot mixes). Some said they use compost on fairways, roughs or for landscaping around the course.

There are a number of uses for compost on the golf course. It can

be blended with other materials such as sand to create reliable topdressings. It can also be blended with grass seed in divot mixes, and because compost contains nutrients and holds moisture effectively, it enables rapid regrowth of grass. The dark colour also absorbs heat from the sun, speeding up germination.

It can be used to establish or renovate turf by applying a 25-50mm layer on the surface and then incorporating it to a depth of around 100-150mm. Once this is done, a seed bed can be established by lightly brushing seed onto the surface. The mixture of nutrients and minerals in the compost provides a stable, reliable and sustained base for rapid growth.

The amount of compost applied to a site will depend on the properties of the compost to be applied, the characteristics of the receiving course and what the final requirements are. When compost is produced on a commercial scale, it is often made from a combination of green waste and municipal household kitchen waste.

These composts are produced under controlled conditions so that microbial activity drives the breakdown of the material, and can then

be used in a range of applications around the golf course.

It was clear that many of you are happy to use compost, however half of you were concerned about the effects of using it on finer turfs such as on greens, and were particularly concerned about possible fungal diseases.

Some of you also raised concerns over the consistency, quality and possible health risks associated with using it. Comments included "the local supervisor couldn't guarantee the quality. No temperature checks in place, rogue weeds getting through" and "Local supplier doesn't screen small enough, or risk of contamination if compost is not made properly."

These concerns are valid but can be avoided by using compost that is certified to the PAS 100 specification. This specification is a quality assurance scheme that puts in place a number of measures in the composting process to ensure minimum standards are met, to ensure compost is safe and consistent.

It includes restrictions on what materials can be used for composting thus reducing the likelihood of unwanted materials in the end product. It requires high temperatures to be consistently





“Two in five of you make your own compost on site using grass cuttings and leaves collected around the course”



ABOVE RIGHT: Carnoustie Golf Club used PAS100 Compost for turf maintenance and repair courtesy of WRAP

INSET ABOVE: PAS100 Compost produced in windrows courtesy of Fife Council

reached during the composting process, so that weed seeds are thermally destroyed, plus regular tests to ensure the product meets minimum quality standards.

Compost that meets the PAS 100 specification can also be screened to very fine particle sizes as low as 5mm and can be applied as top dressings both to fairways and greens.

Trials have demonstrated that using compost as a top dressing is just as effective as a traditional sand based topdressing. In fact, rather than increasing the prevalence of fusarium fungal diseases such as dollar spot, compost based top dressings have been shown to suppress them due to its slow release nitrogen.

Compost top dressings are best applied during spring or autumn. This helps to avoid run off and material loss during heavy rain. Periods of hot and dry weather should also be avoided as this may inhibit the level of incorporation of the compost into the underlying soil.

Many of you are aware of the benefits of using compost. We received comments such as: “this is a good way of controlling waste products on site and saves us money” and

“improves soil biology and soil food web to reduce chemical reliance”.

The environmental and sustainability benefits of using compost are clear. It recycles waste materials, helps reduce the need for artificial fertilisers and the addition of organic matter can help to improve soil structure. You can also save money too both by using your own compost and by using PAS100 compost.

Carnoustie Golf Links welcomes over 115,000 golfers a year and needs to maintain its courses to the highest standards. Following successful trials, the club took the decision to use quality compost in the repair and maintenance of the courses. Divot mixes comprise of 6mm grade compost at a ratio of 1:3 with sand which is then blended with seaweed meal and grass seed.

The blend creates a material close to a sandy soil which offers moisture retention and nutrients. It has been found to provide a practical cost effective and sustainable alternative to the virgin materials used in the past - such as fensoil and fertilisers. Using locally sourced PAS 100 compost led to cost savings of circa 30%, or around £13 per tonne as a result of the reduced haulage costs.

In a trial conducted at Monifieth

Golf Links, comparing divot mixes based on compost and fensoil, found that not only did the compost perform as well as the fensoil but also resulted in an annual cost saving of £1,480.

Some of you who responded to the survey are keen to use PAS 100 compost but either don't know enough about it, or have struggled to find a suitable local supplier.

We recognise these are issues that need to be addressed and are looking at ways to improve access to information.

A good practice guide is available on the WRAP website, providing information about how compost can be used successfully on golf courses.

Also available is the Compost Suppliers Directory: compostsuppliers.wrap.org.uk This tool helps identify suppliers of compost and compost-based topdressing in your area. It will be updated over the coming months to include a wider range of suppliers who can deliver the most suitable products.

If you are interested in finding out more about the results of the survey, please contact lee.best@wrap.org.uk