compost Tea is not a form of fertiliser, it is all about extracting the great diversity of life contained in healthy soil by ‘brewing’ specially prepared compost in an aerated solution of water, nutrients and biostimulants. This biologically rich tea can then be used as a foliar spray or rootzone drench to give your turf all the benefits of living in a healthy natural soil.

Why would I want to use compost tea?

The inherently compacted, sand-rich nature of many sportsturf rootzones, combined with all the stresses of year round preparation and play with no seasonal respite, means that rootzones can often only sustain species of hardy soil bacteria, rather than the more delicate, diverse soil biology essential for optimal healthy grass growth. This lack of rootzone biodiversity is compounded by the use of high salt index inorganic fertiliser and biocidal pesticides, which regular intensive physical aeration can do little to alleviate and can actually make worse.

Whilst a bacterial dominant soil is appropriate for growing primary colonising annual grasses like Poa annua, the secondary colonising fine perennial grasses, rye, bent and fescue, which have evolved to form close associations with natural soil fungi, will always struggle to become established. Being able to regularly top up your rootzone with a full complement of bacteria, fungi, protozoa and beneficial nematodes from a fungal dominant compost will give your grasses all the benefits of less intensively managed soil, whilst maintaining the playing characteristics of a firm, sand-based rootzone.

Can I use any compost to make my tea?

Whilst it is undoubtedly possible to make a compost of your own that is suitable for tea making, it does require considerable skill, knowledge and effort, and is a job for the experienced composter, as there are many potential pitfalls. The combination of green and brown materials, their relative sources and percentages of carbon and nitrogen need to be carefully selected to promote the biology required for fine turf growth, and the temperature, moisture content and oxygen levels must also be carefully regulated and maintained throughout the composting process.

Finally, a full biological analysis of the finished compost should ensure that you have all the types of biology you require and are not unwittingly adding pathogens to your rootzone.

Commercially available composts are produced specifically to make bacterial or fungal dominant teas, and they should be biologically tested to give them a clean bill of health. With commercial compost tea brewing packs, complete with starter nutrients and biostimulants, which are suitable for re-brewing, being available for around £75 per hectare for sand based rootzone, dropping to as low as £15 per
hectare for soil pitches and fairways, you need to carefully consider whether there are any practical or financial advantages to making your own.

**What sort of compost tea brewer do I need?**

Although it is much easier to home build a suitable compost tea brewer than it is to make the compost itself, there are, again, several points to consider to achieve consistently healthy teas. The volume of a brewer is important, and commercial brewers from 30 litres to 1000 litres are available. As a rule of thumb, you will need a minimum of 100 litres of brewer capacity per hectare of area to be treated so, anything less than a 200 litre brewer for a golf course can quickly become impractical.

The method of aeration of the tea is important, and a fine diffuser, rated to the volume of the brewer that maintains a dissolved oxygen level of at least 6ppm, is a must. The diffuser must also be easy to clean.

Other factors to take into account are the ease with which the finished tea can be drawn off from the brewer for addition to the spray tank; the ease with which the used compost can be retrieved and re-used, if necessary, and the filtration method supplied to ensure that the finished tea is pure enough to go through your sprayer, whilst not removing all the essential biology.

Finally, the ability to keep the brewer clean and sterile is important to prevent the build up of any unwanted biology in hidden nooks and corners and, to this end, brewers with all rounded surfaces and no corners, which gives easy access to the inside of the brewer for cleaning, are recommended.

A number of homemade brewers are already in successful operation at golf courses, and there are a wide range of commercially made brewers and hybrid extractors readily available. As brewer options and their peripherals increase, it makes sense to seek professional advice to ensure you are sufficiently informed to make or choose the best brewer for your course and your budget.

**How do I know if the tea I make is any good?**

After a short time of regular tea usage, visible improvements in your rootzone and in plant health should become apparent. Longer term tea users, who can apply anything from four to twelve brews a year, report a visible ‘cleaning’ and reduced layering of the rootzone as the action of billions of motile organisms break up the soil, improving aeration and drainage. Adding essential biology back to the soil has also been shown to reduce fertiliser requirements, as nutrients are held in the rootzone and made available for the plant through the action of complex soil food webs.

The use of compost teas has also been shown to encourage fine grass establishment, reduce thatch and produce healthier grasses that are less prone to disease and environmental stresses.

To obtain a more immediate assessment of tea quality, you can carry out your own microscopic analysis. Armed with a suitable second hand phase contrast microscope, and with a couple of hours of expert tuition under their belt, greenkeepers and course managers are showing that they can quickly identify all the useful biology in their compost teas, and give their brews a health check at any stage of production and application.

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