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The good news is that there are four natural methods that greenkeepers can employ to manage disease. All require a healthy population of bacteria and fungi around the roots system. When the microbial population is in place:

1) The beneficial microbes form a protective barrier around the roots and leaf lesions.
2) Some produce natural antibiotics to kill pathogens.
3) Pathogens become a food source for the beneficial microbes.
4) Some microbes and biofilm encourage the plant to produce hormones called phytoalexins that help it fight off disease.

Fertiliser requirements are also reduced, microbes are made from food and humic compounds which increase carbon dioxide exchange capacity (CCE) and reduces fertiliser inputs but more importantly, the rootzone develops a fungal biomass which we now know is needed for perennial grass to be grown instead of poa annua.

This means that less top dressing is required to maintain a fast surface, less fertiliser is required for more consistent surfaces and you do not need to starve greens to reintroduce brittleness.

Percolation rates are also a function of the biological activity in the rootzone. Pollutionally all beneficial microbial activity is undertaken by aerobic microbes but it is perfectly possible to manage many golf greens without large tine hollow coring, because bacteria, fungi and beneficial nematodes all maintain a friable, fast draining, aerated soil.

Regular microtining and occasional verti draining should be all that is required for all but the most compacted, thatch greens.

Disease management is now high on most people’s agenda with the cost and gradual reduction in available fungicides.

The basic premise is that healthy grass is less susceptible to disease but the stresses put upon greens, turf and fairways means that the grass is always susceptible to pathogen attack.

20 years have passed since the first products entered the market and microbes became available for turf managers. In the early years they were designed to solve specific problems like black layer, nutrient retention and thatch degradation, based upon easily observed actions of common soil microorganisms.

The early results sparked off a wave of research initially by professors interested in microbial reactions on turf with Professor Alan Gange at Royal Holloway College but also led to a wave of research initially by professors interested in microbial activity in the rootzone.

The early results sparked off a wave of research initially by professors interested in microbial activity in the rootzone. So how does this work?

The main areas where healthy soil allows management practices to improve to help produce fast, even, low thatch greens are:

Reduced Physical Aeration (it is still needed but in less disruptive forms)
Reduced Fungicide Use
Reduced poa annua - improved perennial grass growth
Reduced fertiliser input

The main change is the treatment of organic matter. Organic matter comprises of dead grass i.e. thatch which is generally considered bad and roots, organic nutrients, soil biomass (bacteria, fungi, protozoa, nematodes, arthropods and worms), humic compounds and organic acids which are essential for healthy plant growth.

Thatch is also the primary food for fungi. Traditionally thatch has had to be physically removed by costly invasive procedures, deep scarification and hollow coring, however aeration provided by micro tines into the thatch layer is sufficient if it is to be degraded by fungi and bacteria.

Thatch is converted to plant food and humic compounds which increase carbon dioxide exchange capacity (CCE) and reduces fertiliser inputs but more importantly, the rootzone develops a fungal biomass which we now know is needed if perennial grass is to be grown instead of poa annua.

This means that less top dressing is required to maintain a fast surface, less fertiliser is required for more consistent surfaces and you do not need to starve greens to reintroduce brittleness and firmness.

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Head GreenKeeper
Sandlilands Golf Club
Sutton on Sea, Lincs

Sandlilands Golf Club are looking to appoint a Head GreenKeeper with a proven track record to manage their mature 18 hole links golf course to the highest standard. The successful applicant must be qualified to at least NVQ3 or City & Guilds and have at least 5 years experience in all aspects of Golf Course maintenance. A thorough knowledge of the relevant H& S & E regulations, Fine Turf Cultivation, PA1 & PA2 spraying and the Effective Utilisation of Modern GreenKeeping Machinery are mandatory. Also essential are the ability to lead and develop the existing GreenKeeping Team, to maintain budgetary control.

The Head GreenKeeper is also required to plan and execute small scale course improvement projects. Salary £18k - £20k depending upon experience and qualifications

Interested applicants should apply in writing, with a full CV to: Miss A M Askew, Club Secretary, Sandlilands Golf Club, The Grange and Links Hotel, Sea Lane, Sandlilands, Sutton on Sea, Lincs LN12 2RA

Or alternatively email your CV with a covering letter to: grangeandslinks@googlemail.com

A starting salary plus benefits will be offered to the successful candidate, subject to experience and qualifications, upon the candidate’s experience. A good understanding of good practice and the ability to work to a very high standard; however, essential. A good understanding of the basic principles of golf course construction is, however, essential. A good understanding of good practice and the ability to work to a very high standard; this is a demanding but rewarding role and a great opportunity for a forward thinking driven individual.

A starting salary plus benefits will be offered to the successful candidate, subject to experience and qualifications, upon proving ability remuneration will be increased.

Interested applicants should apply in writing or by email with a full CV and covering letter no later than Monday 16th September to: Adam McColl, Course & Club Manager, Crews Hill Golf Club, Cattlegate Road, Enfield, Middlesex, EN2 8AZ.