

## 1 THATCH LAYER CONTROL AND MANAGEMENT

Typically, thatch will be much quicker to build up in the main growing season and it can easily take greenkeepers by surprise if they don't keep a watchful eye on the situation.

Reducing a troublesome thatch layer significantly is a job best left for the autumn when severe measures can more safely be undertaken, but following a performance greenkeeping programme will ensure that you are minimising the occurrence of new thatch through the production and maintenance of a healthy living rootzone and turf.

## 2 COMPACTION CONTROL AND RELIEF

Second only to thatch in causing green problems, compaction is a major factor in reducing green speed. This is because it reduces the air capacity of the soil and encourages excessive thatch build up and generally poor soil conditions.

This leads to uneven surfaces and areas of varying growth patterns which can have a detrimental effect on green consistency and speed. Compaction is literally the squeezing of air out of the soil by foot and machinery traffic.

It is vitally important to get compaction under control and to maintain the green free of major compaction for as much of the year as possible.

## 3 LOCALISED DRY PATCH MANAGEMENT (LDP)

A huge subject in itself and the one I have written about more than any other due to the severe problems it causes on bowling surfaces and the sheer volume of enquiries I receive about it.

This not only adversely affects green speed, but green conditions generally. In basic terms, LDP is a condition (not a disease) that causes soil to be hydrophobic or water repellent.

There are lots of theories about what causes LDP, but in my opinion and experience the major factor is the excessive use of sand top dressings on bowling greens over the last 40 years.

A thorough aeration programme throughout the whole 12 months of the year and the timely use of wetting agents are essential elements of any programme to overcome LDP.

However, the main player in beating the problem is nature itself and for it to have a chance of working we must stop using sand top dressings and allow new humus to build up naturally through the decomposition of thatch over time.

Some helpful tools that can be employed during the recovery process include zeolite turf amendments which help in increasing moisture retention which is usually greatly reduced in sandy soils; wetting agents which lower the surface tension of water and allow it to soak into affected areas more readily; the Sarrell roller which allows you to keep the surface open throughout the summer without adversely affecting the playing surface and careful irrigation management based on a water balance sheet. Sarrell rolling is a useful addition to the summer programme. This utilises a light roller with short, round section tines which pierce the surface by 10-20mm. By allowing water to enter the turf more easily and preventing the formation of a surface crust, the sarrell roller is an unobtrusive way to help with problems like localised dry patch.

Liquid Bio fertilisers are a key component of the eradication of LDP also as they help to encourage increased soil microbial activity. It is now also possible to re-introduce humus in granular form to excessively sandy greens and this is best applied in the autumn after hollow tining.

#### 4 SWARD COMPOSITION (GRASS TYPES)

The finer bent (agrostis) and fescue (festuca) grasses are the desirable plants for creating a dense and uniform bowling surface which performs consistently.

Unfortunately, almost all greens will suffer from annual meadow grass ingress and this is almost inevitable as this weed grass encroaches from surrounding areas readily.

Weed control is essential also but becomes less of a problem as the sward becomes finer and denser.

Compaction and thatch control are key factors in producing a fine turf surface also; compaction being a major factor in the encouragement of annual meadow grass and meadow grass itself being a prolific producer of thatch.

#### 5 MOWING FREQUENCY

A surprisingly important factor in producing a consistently fast paced green and much more important than mowing height which might come as a surprise.

During the main playing season, it is almost impossible to mow the green too much. Daily mowing is advised, but if there is an evening event, then another cut in the late afternoon shouldn't be out of the question.

The majority of complaints about green speed could be eradicated if clubs could find a way around the tradition of cutting the green only three times a week.

#### 6 IRRIGATION, AERATION AND FERTILISATION

Make sure that these regular cultural practices are applied as per the performance greens programme, in other words in timely planned fashion, using the most appropriate products and equipment each time.

Irrigation practice should be based on a thorough knowledge of the water balance of your soil through keeping records of rainfall and evapo-transpiration and applying water accordingly. Irrigation should always be applied deeply and not daily; this means that you should apply larger amounts of water at less frequent intervals rather than applying light applications every day during dry spells.

Aeration practices vary through the year and these should also be adjusted to suit conditions but should include scarification in spring and autumn, solid/hollow tining spring and autumn, pencil tining and Sarrell rolling as required through the summer and repeated deep slit tining throughout the period from October to February.

#### 7 MOWING HEIGHT

Within reason, lower isn't better and shaving greens will only produce a faster surface for a few hours and a pretty bumpy one at that.

Fine swards will suffer and meadow grass will dominate any sward where the cutting height is kept below 4.5mm for any length of time.

Much more important is the requirement for mowers to be maintained and set properly and for the green to be cut frequently.