

ADVICE FOR DEALING WITH SNOW AND ICE ACCUMULATION ON GOLF GREENS

Over the last three weeks much of the UK has been subject to extreme weather conditions. Extended periods of snow cover and low temperatures (in some places as low as -21 °C) are now causing real concern for turf managers. Such extreme conditions are potentially damaging to fine turf and the main aim is to limit the level of damage as we move towards the start of the 2010 playing season.



Photo 1: Typical snow mould disease on fine turf

If the greens are covered in new snow the main concern would be the development of the disease snow mould (caused by the pathogen *Microdochium nivale* the same one that causes fusarium patch disease). If a preventative fungicide was applied beforehand this is unlikely. However, untreated greens or those with active Fusarium patch before the snowfall may develop snow mould as the turf is insulated under the snow. If a disease attack becomes apparent after the thaw then a curative fungicide application will be required. Products containing the active ingredients iprodione applied at 20 l/ha or chlorothalonil at 30 l/ha should be applied for best control.

It is the prolonged period of frost and ice cover that is an unknown quantity for many turf managers in the UK. Photograph 2 was recently taken and clearly shows a thick layer ice over a putting surface. Although frustrating, our best advice in the majority of cases is to let nature take its course and wait for a thaw and then give time for recovery.



Photo 2: Thick ice cover on a putting surface



Trying to remove a solid cover of ice is not recommended for the following reasons:

1. In most cases it is impractical.
2. It is likely to cause further collateral damage to the greens surface (and possibly the surrounds if machinery is used).
3. The removal process can physically damage the turf cover especially when the grass is stuck into the ice.
4. It may actually expose the grass plants to even lower temperatures with the ice and snow cover acting as insulation.

In most cases the sensible approach is to do nothing and wait for a thaw. However, where deposits are deep, some careful chipping and removal by hand (as long as the work does not penetrate the turf canopy) may accelerate the ice removal process once the thaw eventually sets in.

When milder weather returns and the thaw begins then efforts should be made to accelerate the ice melt. To achieve this, spreading a dark sand or material such as charcoal onto the surface can help to absorb heat and literally melt the ice. Once the ice starts to melt, it is important to then remove any meltwater by pumping or by squeegee to take it away from the turf surface without causing any damage to the underlying turf.

As this is fairly uncharted territory in the UK we are unsure of the potential damage that may be caused. The extent of any damage will depend on each individual circumstance and, in particular, the sward composition of the greens. Annual meadow grass (*Poa annua*) dominated surfaces are particularly likely to suffer to a greater degree compared with bent and fescue surfaces which have been shown to survive under ice for 70 days in the US.



Once the ice has been removed, it will be important to provide some rest to the greens to allow the turf to overcome the period of stress and recover from any damage that may have occurred. Do not be tempted to open the surfaces for play too quickly.

If intensive overseeding or turving is required then it will be important to communicate the situation to the club to set a realistic level of expectation for recovery time and playing standards in the meantime.

In some cases it may be clear that the problems have been exaggerated by shading from adjacent trees or by the poor drainage of the underlying soil and so measures to improve the situation and prevent reoccurrence in the future should be considered.

We hope you find this information helpful.

For further information, or to receive more specific advice, please contact Sales & Marketing: helen.waite@stri.co.uk

