



Bowling Green Digest

ISSUE 1 - WINTER 2024/25

Why Winter?

by Henry Bechelet

The winter is an important time for Bowling Green maintenance because this is when a significant deterioration in turf quality can occur. Moss invasion, disease attacks and general thinning and loss of grass cover can all happen during winter if we don't keep our eye on things. The players won't thank us for presenting a mossy and bumpy playing surface for the spring. So don't turn your back and close the gate on the green, because there is important work to be done. **The preparations for next season start here.**



Henry Bechelet

Henry Bechelet is Technical Manager for ICL Turf and Landscape and he also volunteers as part of the greenkeeping team for his local Bowling Club.

Doesn't everything just shut down?

Rather than shutting down, the turf can go backwards during the winter. There's actually a lot of work to be done on bowling greens from December to February to save the turf from

winter decline. The tasks through this time can be daily, unless there is snow on the ground or there is a hard frost. Generally, you need a good greenkeeping team in place to cover all the daily tasks without always relying on one person. Bowling green maintenance requires a lot of hard work and volunteers are usually welcomed.

So, what's the problem?

Greenkeeping during the winter is actually more difficult than in "the old days" because conditions are generally that bit milder. These milder conditions might mean that, although the turf is sometimes growing, these conditions are also ideal for turf disease and moss to flourish. Our main job during the winter is to prevent turf decline in the form of disease scarring and moss invasion. Such a deterioration is not inevitable as long as we keep going with a good winter maintenance programme.

OK, what do we need to do?

Essentially, we need to maintain turf health and work to create an environment that is less conducive for the development of moss and disease. This means managing the conditions to favour the turf, with things like daily dew removal or minimising the level of shading. We can also reduce the likelihood of moss invasion and disease attack by maintaining surface drainage, minimising leaf wetness and by using materials containing iron sulphate. But in order to be able to do all these things, we need to be properly equipped.

Greenkeeping during the winter is actually more difficult than in “the old days” because conditions are generally that bit milder.

So, what do we need then?

To minimise turf decline during the winter we need to put some essential tools in the hands of the greenkeeping team. The following equipment is necessary to facilitate our winter programme of work (some of these items may need to be hired or borrowed).

- A dew brush to remove dew
- A switching cane to scatter worm casts
- An aerator/spiker for surface drainage and soil compaction relief
- A fertiliser spreader for granular applications
- Walkover sprayer for liquid applications
- Leaf blower to clear off leaves and other debris
- Mower to keep the turf topped when needed (6-7mm)

Can we do all this ourselves?

Yes, there is a lot we can do, but the greenkeeping team will need proper training to ensure safe and effective working. All members of the team should be physically able and properly trained to complete the various allotted tasks. Some of the more specialist or heavy duty tasks such as aeration treatments might need to be carried out by specialist contractors.

Greenkeeper training courses may be found at :

bowlsengland.com
bowls-central.co.uk
groundstraining.com
lantra.co.uk
thegma.org.uk

What about product applications?

The safe handling and application of potentially hazardous materials (such as professional plant protection products) should not be carried out unless the operatives have been properly trained and certified. For instance, users must hold a recognized certificate of competence to handle and apply professional products.

Training courses for the use of plant protection products can be found at cityandguilds.com and lantra.co.uk. The training will also cover the use of PPE (including gloves, masks, and coveralls) and the requirements for storage facilities (e.g. bunded floors to contain spills etc). Greenkeeping requires proper training for all tasks and certification for some.

So where do we start?

Dew removal is probably the most important bowling greenkeeping task during the winter months and this might well need to be carried out on a daily basis. In winter, a damp and dewy surface creates the ideal environment for the development of the fungal disease Microdochium patch. Dew removal creates a less conducive environment for the disease to develop.

A severe Microdochium patch disease outbreak can cause the surface to become pitted and uneven and so we need to do everything in our power to reduce the risk of attack.



Microdochium patch disease beginning to cause scarring)



Microdochium patch disease scar would cause significant turf deterioration if allowed to spread)

Dew formation can continue to occur throughout damp winter days and so it is important not to remove the dew too early in the morning.



Dew removal using a dew brush is best carried out in 2 directions

OK, how do we remove dew?

Wide lightweight specialist dew brushes are probably the best method. They are easy to operate but they might need to be used in two directions for fully effective dew removal.

Switching canes can also be effective for dew removal when in expert hands but they might not be so effective in the hands of an amateur (and poor technique can give rise to back problems, which is to be avoided). I would reserve the switching cane for the localised scattering of worm casts and leave the dew removal for the wide brushes.

Dew formation can continue to occur throughout damp winter days and so it is important not to remove the dew too early in the morning and you may even need to consider a couple of treatments during the day if the dew has reformed. Don't underestimate the power of dew removal.

Do you need to keep feeding the green?

Greenkeepers might refer to using “iron” products or “turf hardeners” during the winter. Iron products would generally just contain iron sulphate and so aren’t nutritional. Turf hardeners are specialist autumn/winter fertilisers that contain low levels of nutrition along with iron sulphate. The nutrition in turf hardeners can be used to maintain turf health if milder conditions are suitable for some turf growth.

Products containing iron sulphate can be used to help us create a less conducive environment for the development of moss and Microdochium patch disease. Soluble forms of Iron can be dissolved in water and applied to the turf using a walkover sprayer. For example, **Sportsmaster WSF “Iron”** can be applied at a rate of 3 kg in 60 litres of water per 1500m².

This can be tank mixed with the penetrant wetting agent **H₂Pro FlowSmart** (1.5 litres per 1500m²) to help manage water movement through the upper soil profile. If conditions are favourable for some grass growth, then an additional 1 kg of the **Sportsmaster WSF “High N”** can be added to the spray tank to create a liquid “turf hardener”. This tank mix might be applied every 4-6 weeks depending on conditions.

Turf hardeners are specialist autumn/winter fertilisers that contain low levels of nutrition along with iron sulphate.



The impact of Iron sulphate on moss

Alternatively, if you only have a granular fertiliser spreader, then the turf hardener **Greenmaster ProLite “Invigorator” 4-0-8 +4fe** can be applied during mild winter conditions to maintain plant health and reduce the risk of disease and moss.

Apply at a rate of 25-30 g/m² to give 4-6 weeks longevity, depending on conditions. A couple of applications during the closed season should be sufficient. Be aware that too much fertiliser can encourage disease activity and so we certainly don’t want to overdo the use of turf hardeners during this time. ICL have a range of fertiliser spreaders to facilitate the even application of the ICL granular fertiliser portfolio.



The green having been treated with Sportsmaster WSF Iron

What about spiking the green?

In terms of soil management, we should be aiming to spike the green 3-4 times during the winter period. This will help maintain surface drainage and also aerate the underlying soil to create a healthier growing environment.

We should be aiming for the tines to reach deeply enough to relieve any soil compaction issues. Pedestrian spikers can be effective but sometimes larger tractor-mounted machines might also be needed for more substantial deeper work.

If you are using your own machine or borrowing/hiring one will need to be fully trained in its proper use. Specialist contractors are available for this kind of work, but they will need guidance - we don't want too much surface disruption going into the new season.

And the mower gets a rest?

To a certain degree but we shouldn't forget that occasional mowing might still be required if the turf is still growing during the winter. The green may well need occasional topping off to help maintain sward quality and density. Reset the height of cut to the winter level of 6-7mm and mow the green whenever needed.

The green may well need occasional topping off to help maintain sward quality and density. Reset the height of cut to the winter level of 6-7mm and mow the green whenever needed.

Is that everything?

No! The green surrounds can be a cause of a lot of problems during the winter months and they need to be properly managed. Shading and lack of air movement caused by surrounding hedges and trees can adversely affect turf health and increase surface moisture levels, which can lead to increased levels of disease and moss activity. Surrounding trees and hedges need to be properly trimmed back to keep shading to a minimum and allow good air movement across the turf surface.

Suffice it to say that leaves lying on the green should be removed on a daily basis or they will smother the turf and cause similar problems.

Can we spray the green if we need to get rid of disease?

If the disease pressure is high and you fear a damaging attack (despite your best efforts), then you may need to use an approved turf fungicide. Turf fungicides are approved products that control specific turf diseases, but they can only be used by qualified spray operators. If you do not have a certificate of competence for the use of plant protection products then you will need to engage a suitably qualified spray contractor to apply the fungicide for you. The choice of product and the timing of application would be dependent on conditions and so should be selected with advice from a BASIS qualified advisor. Small packs are available for the turf fungicides Instrata Elite and Medallion from Syngenta but they should only be applied after careful consideration.

Go to syngentaturf.co.uk for further information on the turf diseases and products available for their control.

It's a busy time then?

Yes! There is plenty to be getting on with during the winter months. Our aim during this time is simply to prevent the bowling surface from deteriorating and for it to be ready for the start of next season.

As a simple recap, these are the tasks that you will need to complete during the closed season...

- Remove surface dew on a daily basis
- Scatter worm casts with a switching cane when needed
- Blow away leaves from the turf surface
- Apply iron sulphate every 4-6 weeks as a stand alone treatment (or as part of a "turf hardener" if the application of nutrient is deemed appropriate)
- Spike the green on 3-4 occasions during the winter, when ground conditions are suitable
- Mow whenever grass growth requires
- Trim back any hedges or trees that might be restricting light and air flow to the turf surface

It becomes obvious that to get all this work complete will require a team effort and you will need people to be down at the green every day, one way or another. The greenkeeping team will need to be properly organised, resourced and trained.

But it's all about preventing deterioration?

Yes, when maintaining the green during the winter, our main priority is to minimise any turf deterioration primarily from disease attack or moss invasion. As far as is possible, we want the green to get into spring in decent shape without the need for any major recovery work. Some turf deterioration is inevitable because the turf is weakened and under attack, but our objective is to keep any decline to an absolute minimum.

It is vitally important that we are still giving the green our full attention during winter. This is when we can make a real difference for the oncoming season and so it's time to button up, wrap up and get down there.

The products mentioned in this article are as follows:

Greenmaster ProLite "Invigorator"
4-0-8 +4Fe (turf hardener)

H2Pro FlowSmart
(penetrant wetting agent)

Sportsmaster WSF "Iron"
(iron product)

Sportsmaster WSF "High N"
(soluble fertiliser)

Useful links

icl-growingsolutions.com/turf

bowlsengland.com

bowls-central.co.uk

groundstraining.com

lantra.co.uk

thegma.org.uk

cityandguilds.com

syngentaturf.co.uk