



# Bowling Green Digest

ISSUE 2 – SPRING 2025  
PART TWO

## The new season

by Henry Bechelet

Welcome back to part 2 of this year's Spring edition of the ICL Bowling Green Digest. Spring is undoubtedly the most challenging time for bowling green keeping, which is why we've broken it into two parts to help you through!

In part 1, we focused on the early spring period (March – April), where our main goal was to capitalise on any growth opportunities to generate recovery and start preparing the bowling surface for the season.

Now, as we move into the second half of spring (April – May), our focus shifts to completing the preparations and perfecting the surface for play.



The green is opened for play, but there is still a way to go to make it perfect.

### Henry Bechelet

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### Easier said than done!

By now, you will hopefully have managed to establish growth, with the support of some nutrition. You might also have applied sulphate of iron to help keep moss invasion under control. Mowing frequency should have increased with growth, and you might have even started to gradually lower the mowing height. However, without consistent strong growth, we won't yet have reached the summer mowing height.



There were signs of growth but not yet enough to support close mowing (was at 5.5 mm).

## The state of play

The season will likely start in April, so it's crucial that the bowling surface is starting to take shape by this time. Players shouldn't expect the "summer best" conditions during April and early May, as the climatic conditions can still be against us. However, our goal should be to create a smooth and firm surface for those early fixtures.

The speed typically develops a bit later, once our summer mowing and surface refinement regimes are in full swing, and when we benefit from drier conditions to create a firm, fast "running" surface. Until consistent growth is established we will still need to be cautious with our early season mowing heights.

## All is yet to come

The first few weeks of the playing season are when we focus on perfecting the surface for play. However, this is still dependent on growing conditions, and we can't drastically reduce the mowing height or consider verticutting or scarification until consistent growth is fully established. It's important to avoid pushing too hard and risking setbacks by intensifying surface preparations too soon—patience is key. Given that spring growth tends to be "stop-start" during April and May and we must carefully coax the surface forward as conditions allow.

## Understand the growing conditions

Last time, we discussed how to monitor the turf's growth potential (GP) using the Syngenta Turf Adviser app. This is a measure of growing conditions that helps us understand the current and upcoming level of growth, allowing us to schedule our nutrition to support recovery.

GP is expressed as a percentage of optimal growing conditions, and generally, you need it to be at 30 - 40% for any meaningful growth to occur. Below that threshold, growth remains too slow for effective recovery, meaning intensive maintenance practices like scarification and close mowing could cause long-term damage.

By regularly tracking GP, you can fine-tune your maintenance efforts, applying fertilisers when conditions are right, while also ensuring you don't push things too hard when growth isn't quite strong enough.



Some moss may be present but verticutting/scarification should not be considered until strong growth is established.

## Spring feeding

Spring fertiliser applications play a key role in supporting and extending turf response during those intermittent bursts of spring growth. But caution is needed – too much nitrogen can drive excessive growth, leading to the production of a lush, soft, slow surface and an increased risk of disease activity, which can leave scars and create unevenness. Monitoring the volume of clippings removed during mowing is a useful way to gauge whether nutritional inputs are required. The aim should be to manage a sufficient, rather than excessive, level of productivity.

Granular fertilisers can still be used at this time, but it's advisable to close the green for a few days to allow the granules to disperse properly and prevent them from being picked up by bowls. If a strong growth boost is still required, products like Greenmaster Pro-Lite "Turf Tonic" (8-0-0 +3MgO +3Fe) are ideal, while Greenmaster Pro-Lite "Double K Calmag" (7-0-14 +4MgO +3Fe) offers a more steady response. Both products can be applied at a rate of 25-30g/m<sup>2</sup>, depending on the desired effect. During the playing season, though, we generally prefer to use liquid fertilisers, as they're less disruptive and can be applied without affecting play.

## The move to liquids

As growth naturally picks up during April and May—conditions permitting—regular liquid fertiliser applications become increasingly important to support healthy turf under both maintenance and play. Liquids also lend themselves well to tank-mixing with other technologies, such as plant growth regulators and surfactants, allowing us to achieve multiple benefits from single applications.

For example, Sportsmaster WSF High N 35-0-14 can be applied at 1-2 kg per 1,000 m<sup>2</sup>, dissolved in 30 litres of water, every 2-3 weeks throughout the growing season.

Alternatively, Greenmaster Liquid High N 33-0-0 +2.6Mg +TE, applied at 1-2 litres per 1,000 m<sup>2</sup> in 30 litres of water at the same interval, can help maintain steady, balanced growth.

The aim with these nutritional inputs is to support consistent turf performance without triggering unwanted growth flushes. Your green's nutritional needs will vary depending on grass species, maintenance intensity, and usage levels, so be prepared to tweak the above guidance up or down based on your own situation. Too much growth will create more problems than it solves—so resist the temptation to overdo it.

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## Integrating plant growth regulators

The plant growth regulator Primo Maxx II could play a key role in your surface refinement and preparation strategy. Primo Maxx is a highly effective management tool used by professional turf managers to boost sward density, promote root development, enhance stress tolerance, and reduce mowing frequencies.

Primo Maxx is typically applied when soil temperatures reach 8-10°C or when GP hits 35-40%. It can be applied at a rate of 20ml per 1000m<sup>2</sup> every 2-3 weeks, ideally tank-mixed with your liquid nutrition applications.

It's important to remember that Primo Maxx is a registered professional plant protection product, so it can only be used by properly trained and certified spray operatives. When applied correctly, it can significantly refine the surface while boosting turf health and overall surface performance.



## Guard against drying out

One of the key considerations as we move through April and May is protecting turf from early-season drought stress. During these months, evapotranspiration (ET) can often far exceed rainfall, leading to extended drying periods (you can track this using the Turf Advisor app). During spring, this gradual drying of the rootzone can often go unnoticed—until it starts causing problems. Left unchecked, dry soils may result in inconsistent, patchy surfaces heading into summer, undermining all your preparation work.

**One of the most common mistakes in bowling green maintenance is overwatering, which can lead to soft, slow-playing surfaces**

## Wetting agents

To help manage soil moisture levels more effectively, monthly applications of a high-quality wetting agent—such as H<sub>2</sub>Pro TriSmart—from April onwards is a sound strategy. TriSmart enhances water infiltration and retention in the soil profile, helping to slow the drying process and reduce the risk of hydrophobic conditions and the development of dry patch. Apply at a rate of 1 litre per 1,000m<sup>2</sup> in 60 litres of water. Regular wetting agent use through the growing season makes it much easier to maintain consistent soil moisture levels and reduce the need for regular irrigation.

## But don't overwater!

Some bowling greens benefit from having pop-up irrigation systems in place to help maintain soil moisture levels during dry spells—but these systems must be used with care.

One of the most common mistakes in bowling green maintenance is overwatering, which can lead to soft, slow-playing surfaces, increased disease pressure, and shallow rooting. To maintain healthy, high-performing turf, irrigation should be carefully managed to maintain sufficient, rather than excessive, soil moisture.

## Soil moisture probes

Professional soil moisture probes can be expensive, but they're invaluable when it comes to making smart irrigation decisions. These tools provide accurate readings that remove the guesswork and reduce reliance on visible signs of stress.

By tracking moisture levels consistently, greenkeepers can spot drying trends early—before turf health declines or hydrophobic conditions develop. This allows for more precise, targeted irrigation, helping avoid overwatering and ensuring water is only applied where and when it's needed.

## Work to soil moisture targets

With accurate soil moisture probes, target soil moisture levels can be set with confidence—typically 20–25% for greens dominated by annual meadow grass, and 15–20% for those with a higher proportion of finer bents and fescues.

During dry weather, daily monitoring across the green is essential to guide decisions on localised hand watering or full irrigation cycles. This approach helps us to maintain consistently firm, smooth, and fast-playing surfaces, even under challenging conditions.

## Hand watering

Rather than relying on routine blanket watering, the priority should firstly be with targeted hand-watering of localised dry spots, high-wear areas, and sections prone to hydrophobic conditions. Hand-watering directs water precisely where it's needed, avoiding the waste and inefficiency of untargeted blanket irrigation.

This targeted approach not only conserves water, but also helps maintain surface consistency—ensuring that all areas of the green perform to the same standard. Using hose-end wetting agent tablet diluter guns with TriSmart wetting agent tablets can further enhance the effectiveness of these treatments by improving water infiltration, boosting moisture retention, and restoring even hydration to affected areas.

Blanket irrigation should be reserved for maintaining plant health during extended dry spells—not for purely cosmetic reasons. Over-irrigation can soften the surface, reduce green speed, and increase disease risk, all of which compromise turf performance. It should only be used when absolutely necessary and ideally guided by accurate soil moisture probe readings.

## Surface pricking

Regular surface aeration is essential for keeping the profile open and receptive to water infiltration, while also supporting healthy root development. However, on bowling greens, it's crucial to avoid disrupting surface smoothness. Low-impact practices such as regular solid or micro-solid tining—or even sarel rolling—are ideal. These non-disruptive techniques help maintain surface openness, improve moisture movement, and preserve the true, consistent playing characteristics of the green.

## Keeping the surface clear

Wormcasts can disrupt the bowling surface, affecting both playability and aesthetics, while also bringing weed seeds to the surface from the soil seed bank. To minimise this disruption, casts should be regularly dispersed using a switching cane—particularly before mowing, brushing, or matches.

This helps maintain a smoother surface and reduces the risk of unevenness during play. There are no approved products for the control of earthworms, so cultural practices are key. Creating a sand-dominated upper soil profile can help produce drier, more easily scattered casts. As such, sand topdressing—at the end of the playing season—can support this longer-term strategy.

## Lurking below the surface

Leatherjacket grubs can also cause issues at this time of year. Their feeding on grass roots leads to thinning turf and surface damage, often made worse by birds or other predators digging to reach them. By spring, the larvae are mature, which limits the effectiveness of control measures.

The best strategy is to act in the early larval stage, shortly after egg-laying in the autumn. At that point, products like Acelepryn or NemaTrident F insect-parasitic nematodes can be used more effectively. If your green regularly suffers from leatherjacket damage, target your control efforts when adult crane flies are active in late summer to early autumn.

## Turf disease

While turf disease pressure is usually low in spring, prolonged mild and damp conditions can lead to outbreaks of *Microdochium* patch disease. This disease can cause scarring of the surface and compromises playing quality. Cultural practices remain the first line of defence—regular dew brushing to reduce surface moisture, occasional applications of iron sulphate, and maintaining balanced nutrition can all help suppress disease activity.

If a fungicide is required, the choice should reflect both the current weather conditions and the severity of the disease. Approved fungicides are professional-use products and must only be applied by qualified spray operatives. Always consult with a BASIS-qualified turf advisor to ensure the most appropriate treatment is selected.

## Reaching our summer routines

By late May, as growth becomes more consistent, the focus shifts from recovery and preparation to settling into the summer maintenance routines. At this point, the key priority is refining a firm, smooth, and fast-playing surface—while maintaining overall turf health. Overly aggressive maintenance can lead to surface deterioration, so it's important to tailor practices to prevailing conditions and ease off during periods of stress.

**By the end of spring, your maintenance programme may include:**

- **Mowing**

Maintain a cutting height around 3.5–4mm, adjusting height and frequency according to growth rates and weather conditions.

- **Brushing**

Regular brushing to remove morning dew helps reduce disease risk and improves sward texture, encouraging a dense, upright growth that supports surface smoothness and trueness.

- **Nutrition**

Continue with a balanced fertiliser programme, adjusting nitrogen inputs to support steady, healthy growth without triggering excessive surges.

- **Growth Regulation**

Primo Maxx II can help regulate growth and enhance turf quality. Adjust application intervals based on weather conditions and growth rates to optimise results.

- **Aeration**

Monthly micro-solid tining or sarrel rolling helps maintain surface infiltration and promotes rootzone aeration without disrupting play.

- **Soil Moisture Management**

Apply wetting agents monthly to optimise water retention and distribution, helping maintain consistent moisture availability.

- **Irrigation**

Ideally, use soil moisture data to guide irrigation decisions. Spot-treat localised dry areas as needed, and avoid overwatering, which can soften the surface and compromise playability.

At this stage, the priority is maintaining the balance between surface quality and turf health—ensuring the green remains in peak condition throughout the summer, without putting unnecessary stress on the turf.



Dew removal remains important at all times.

## And finally....

In conclusion, successful bowling green management through the spring requires a careful, balanced approach that supports both turf health and playability. Early in the season, turf growth is often inconsistent and the surface is vulnerable, so maintenance practices must remain flexible and responsive to changing conditions.

Strategic fertiliser use, plant growth regulation, effective soil moisture management, and a light touch with mechanical practices all help support a resilient sward capable of withstanding the challenges of the spring transition.

As growth stabilises by late May, the focus shifts to refining a firm, smooth, and consistent surface ready for summer play. Regular mowing, brushing, aeration, balanced nutrition, and moisture control will ensure both performance and durability.

Ultimately, success comes from adaptability and close observation. By aligning maintenance with growth potential and prevailing conditions, greenkeepers can deliver a high-quality surface that not only looks good but plays consistently—providing bowlers with a rewarding experience all season long.

**For more information on greenkeeping practices and product recommendations, visit [www.icl-sf.co.uk](http://www.icl-sf.co.uk)**



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### **Guidance Note:**

## **Equipment and Professional Product Applications**

Effective greenkeeping depends on using the right equipment and professional product applications. Essential tools like well-maintained mowers, sprayers, spreaders, switches, brushes, and aeration equipment are crucial for maintaining turf quality and consistency.

Regular servicing and calibration of these tools ensure accuracy and precision in all maintenance tasks. It's also vital that all operatives are properly trained in the use of greenkeeping equipment.

Training opportunities are available through organisations like the Greenkeepers' Training Committee, GMA, Lantra and Bowls England, ensuring that operatives have the skills and knowledge to use equipment safely and effectively.

Professional plant protection products should only be applied by trained and certified operatives to ensure safety, legal compliance, and the effectiveness of the products, while also safeguarding the environment.

Proper handling, application, and storage are essential, and operatives must hold recognised certificates of competence, available through organisations like City & Guilds and Lantra. Safety protocols, including the use of appropriate Personal Protective Equipment (PPE), must always be followed.

Additionally, storage facilities must meet required standards, such as bunded floors, to contain any spills and ensure safe storage.

### **Useful links**

[icl-growingsolutions.com/turf](https://icl-growingsolutions.com/turf)  
[bowlsengland.com](https://bowlsengland.com)  
[bowls-central.co.uk](https://bowls-central.co.uk)  
[groundstraining.com](https://groundstraining.com)

[lantra.co.uk](https://lantra.co.uk)  
[thegma.org.uk](https://thegma.org.uk)  
[cityandguilds.com](https://cityandguilds.com)  
[syngentaturf.co.uk](https://syngentaturf.co.uk)