November 2025 Newsletter

Improving the draw on a rink

You will be aware as part of the process of evaluating a bowling green, the “draw” of each rink is measured. The minimum distance between the furthest outward point of the trajectory of the bowl and an imaginary straight line between the start and end of the bowls path, is 1 metre.

If that minimum distance is not achieved then the draw is deemed to be too narrow, and will result in a reduced score for that rink.

In order to improve the draw, one must first consider the factors that will affect the draw on a rink.

The first factor, which is largely out of the control of a Greenkeeper, is the direction and strength of the wind at the time of the test. A strong cross wind will usually result in a wide forehand and a narrow backhand draw, or vice versa depending on the direction of play and the wind. It is caused on the narrow hand by the wind pushing against the bias of the bowl, similarly on the wide hand the wind pushing with the bias of the bowls.

The second factor, is the resistance between the bowl and the grass surface (commonly known as friction by the scientific community). Fortunately, this is something the Greenkeeper does have mostly under their control.

This resistance is made up of two components, the resistance of the grass itself, plus anything else that is present on the surface of the green. Under the term “anything else that is on the surface of the green”, the following will have an impact on the total resistance placed on a moving bowl: -

- Mat thickness
- Water
- Dead grass (thatch)
- Soil type (sandy or clay)

High resistance between the bowls and the grass surface can manifest itself in two ways, the first being the speed of the green, and the second in a narrow draw on the rink.

A quick and simple fix for this can be to cut the turf grass shorter, however this must only be considered as a quick fix and is not sustainable as a long-term solution since it will damage the grass plant. Reducing the cutting height, has an impact on the process of photosynthesis, since it reduces the available leaf area of the grass plant able to absorb the sunlight, water and carbon dioxide it needs to produce the carbohydrates it needs to sustain itself.

The most effective way to improve the speed of a green, which has a direct bearing on the draw of a green, is to undertake regular grooming. Grooming will have two significant effects on the grass surface:

- The "thinning" out of the mat, thereby reducing the amount of grass the bowls is in contact with.
- The removal of much of the residual dead grass left on a green after mowing and grooming.

The removal of residual grass will also reduce the chances of a build-up of compost from decaying debris, which leads to sponginess of the surface, and a consequent increase in friction between the bowl and the grass surface. Grooming also helps to reduce the effects of the different types of grass present on a bowling green. Many of these grasses, whilst very similar in appearance, almost certainly have different growth patterns, and can lead to variations of the speed and draw of a bowl. Removing dead grass and loose soil by **regular brushing** will also improve the speed of a green. Regular brushing becomes more critical during the winter months, when the rate of growth by the grass plant is greatly diminished by the colder soil temperatures.

The speed of a green has a direct correlation the draw of the bowl.

A second quick fix is not to water the green, difficult to do if it's raining or if the green has been covered in early morning dew, but controllable if its irrigation water that has been applied. Again, if it is an intervention by the Greenkeeper in reducing the water being applied, care must be taken to ensure that this is only a temporary measure, since it will affect the photosynthesis process necessary to ensure a healthy grass plant.

In the case of natural precipitation (including dewfall), the extent to which this will have an adverse effect on the draw, is the efficiency of the drainage (infiltration rate). There are a number of factors that will impact the rate of drainage from a green, and these include: -

- Compaction
- Nature of the soil composition
- Effectiveness of the drainage system installed
- Removal of any surface water

All of the above factors can be treated, albeit that some require significant intervention by the Greenkeeper.

The next significant factor that can affect the draw, is the overall smoothness of a green. A bowl travelling over an undulating surface will tend to lose its forward momentum, much more quickly than a bowl travelling over a flat and smooth surface.

Probably the most significant effect of a green with “poor” levels is the undulations caused by player foot traffic up and down a rink, and this will be exacerbated when not moving the rinks on a regular basis, particularly in the wet season, when the soil is more susceptible to movement. It therefore cannot be emphasised enough that it is important to regularly take the greens levels to see what is actually going on. Major undulations can be mitigated by adding top dressing over a period of time, remembering that no more than 8 mm of top dressing should be applied at any one time, without it likely causing damage to the underlying grass plants.

The smoothness of a green has direct effect on the draw of a bowl.

There are however, a number of things a Greenkeeper can do to ensure the best possible draw on a green. The first is to incorporate a regular “box” or “straight” cut in their cutting regimes, as this will remove any possible removal of minor undulations caused by the normal diagonal cutting. The greenkeeper should ensure that when cutting only a double cut is undertaken, as constant single cutting will lead to a degradation of the performance of a green. The other thing to do is to incorporate a “box” or “straight” groom at least once a month. This will also help to remove any minor undulations that may have been caused by mowing.

WP GreensCare Standing Committee, November 2025