



# Warwick District Council – Victoria Park Bowls Club

## Tournament Monitoring Report – The National Championships (Tournament data review)

Report Date: 1<sup>st</sup> September 2014

Consultant: Paul Woodham

## CONFIDENTIAL

Date of Visit: Saturday 30<sup>th</sup> August 2014

Visit Objective: To carry out a tournament monitoring visit for Bowls England National Championships

Present: Mr Michael Pincher – The Landscape Group  
Mr Paul Woodham – STRI Ltd

Weather: Cloud and occasional sunshine. Light rainfall prior to inspection. Soil temperature 14.4°C.

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## Executive Summary

- The final set of performance data was collected on the penultimate day of the Bowls England National Championships. At the time of the inspection green D had been cut and turf ironed whilst greens A, B and C were turf ironed only. Green E saw no set-up maintenance due to the green being omitted from the days' schedule for play.
- The greens have coped exceptionally well with the level of play and indeed showing signs of recovery even through the rink ends exposed to the highest amount of play.
- The pace of the greens remained consistent and within the higher end of the tournament target range. The greens were also running at their smoothest since the start of the tournament despite the effects of wear.
- Light overnight rainfall meant that soil moisture content was similar to the previous days' measurement, it is therefore unsurprising to have seen little change in surface firmness.
- There was no evidence of turf grass disease or other issues which may affect the forthcoming Royal Leamington Spa Ladies Open.
- Nine sets of performance data, including pre-tournament measurements, were collected throughout the month of championship play. The following table summarises the average performance of each green.

Average Performance

|    | Speed<br>sec     | Smoothness<br>mm/m | Moisture<br>vwc | Firmness<br>gravities |
|----|------------------|--------------------|-----------------|-----------------------|
| A  | 12.3 (11.9-13.3) | 17.0 (15.3-19.7)   | 31.3 (30-37)    | 127 (116-172)         |
| B  | 12.3 (11.9-12.8) | 17.3 (14.9-19.7)   | 26.4 (18-33)    | 115 (103-136)         |
| C  | 12.3 (11.9-12.9) | 17.3 (15.3-19.7)   | 26.3 (20-32)    | 120 (105-142)         |
| D  | 12.3 (11.9-12.5) | 16.9 (13.7-21.2)   | 26.4 (19-35)    | 120 (105-146)         |
| E* | 12.0 (11.5-12.6) | 19.4 (17.2-23.0)   | 23.4 (13-30)    | 108 (97-144)          |

Figures in brackets show average low-high

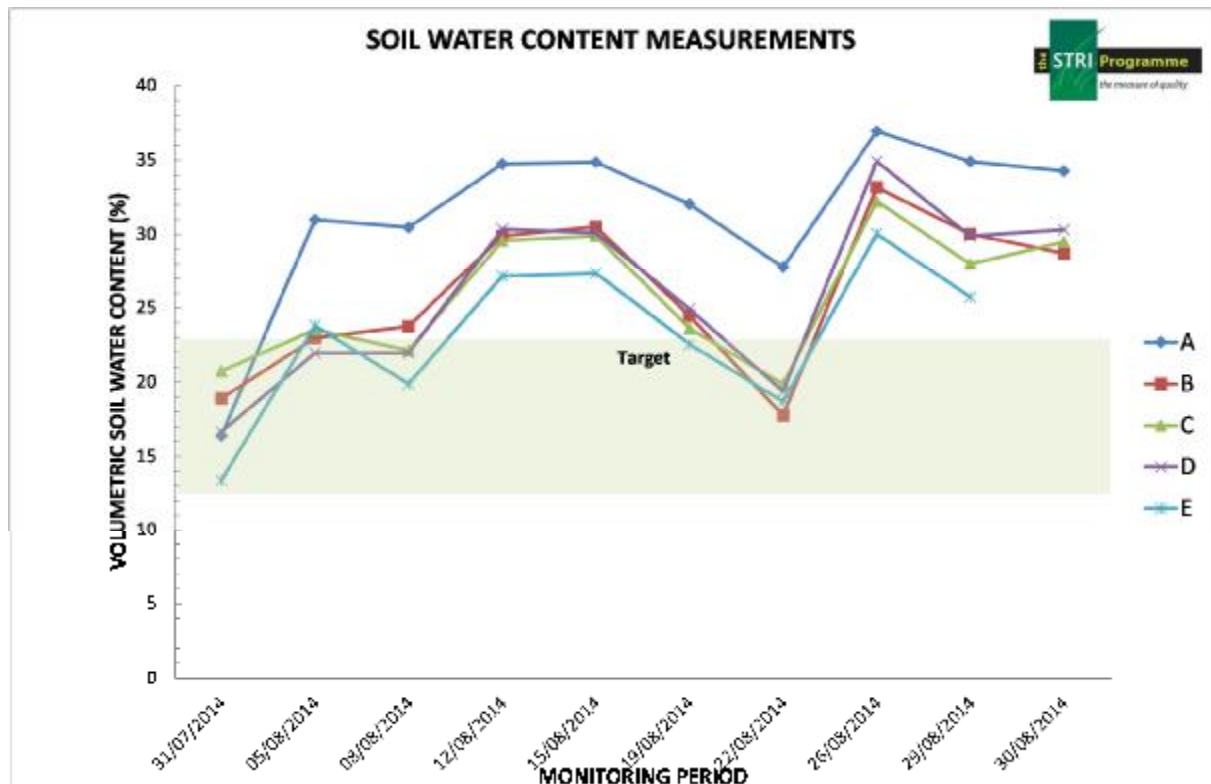
\*included data 19/08/14 with no set-up maintenance applied

## Performance Data

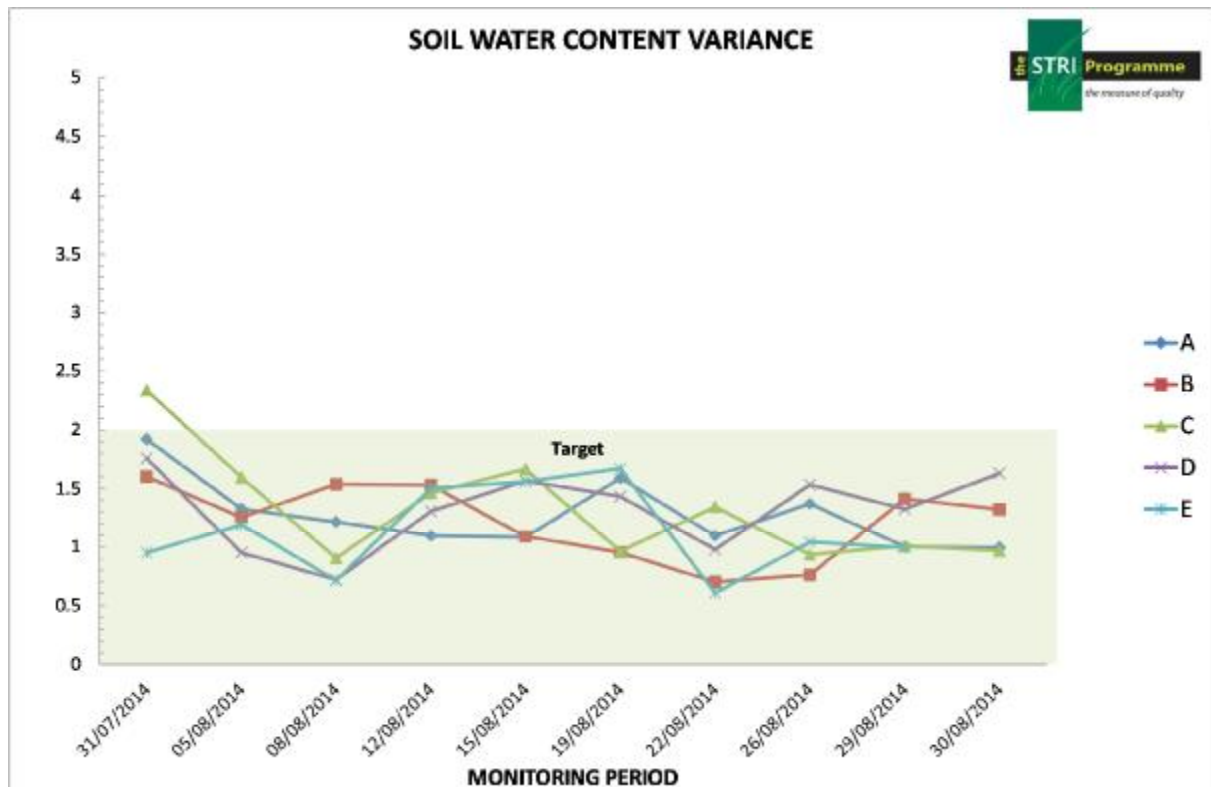
A summary of the performance of the greens is provided as follows. The charts monitor the performance trends throughout this year's championship.

### Soil Moisture Content

Soil moisture content was recorded using the Theta Moisture Probe in accordance with STRI Standard Operating Procedures. The results are detailed in the line chart below.

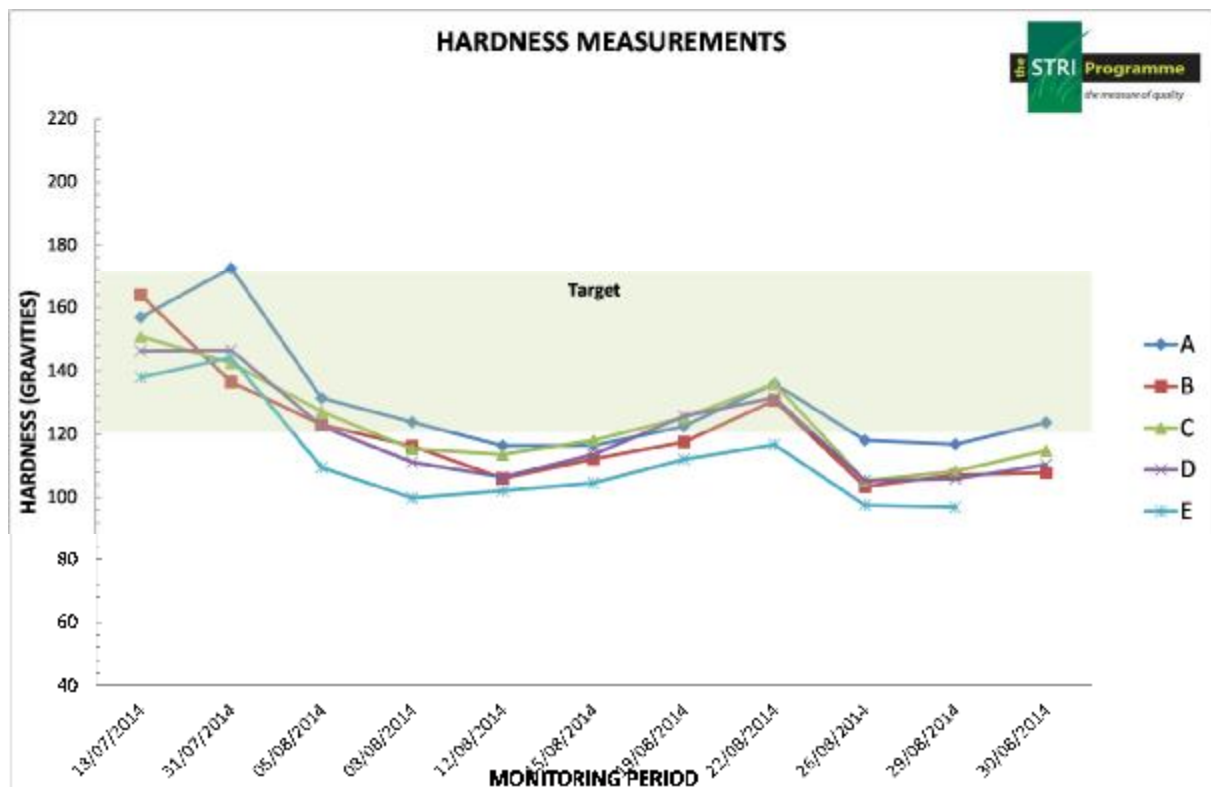


- Although we have no formal rainfall data from Victoria Park site, it is clear that the greens have had to cope with a higher than average rainfall throughout the duration of the tournament.
- Only within the first few days of play and midway through the tournament did we see moisture levels returning towards target values. Moisture content was mostly uniform and within target on the 22<sup>nd</sup> August at which point the greens recorded the fastest speed.
- With prevailing wet conditions from rainfall, soil moisture distribution has remained uniform.

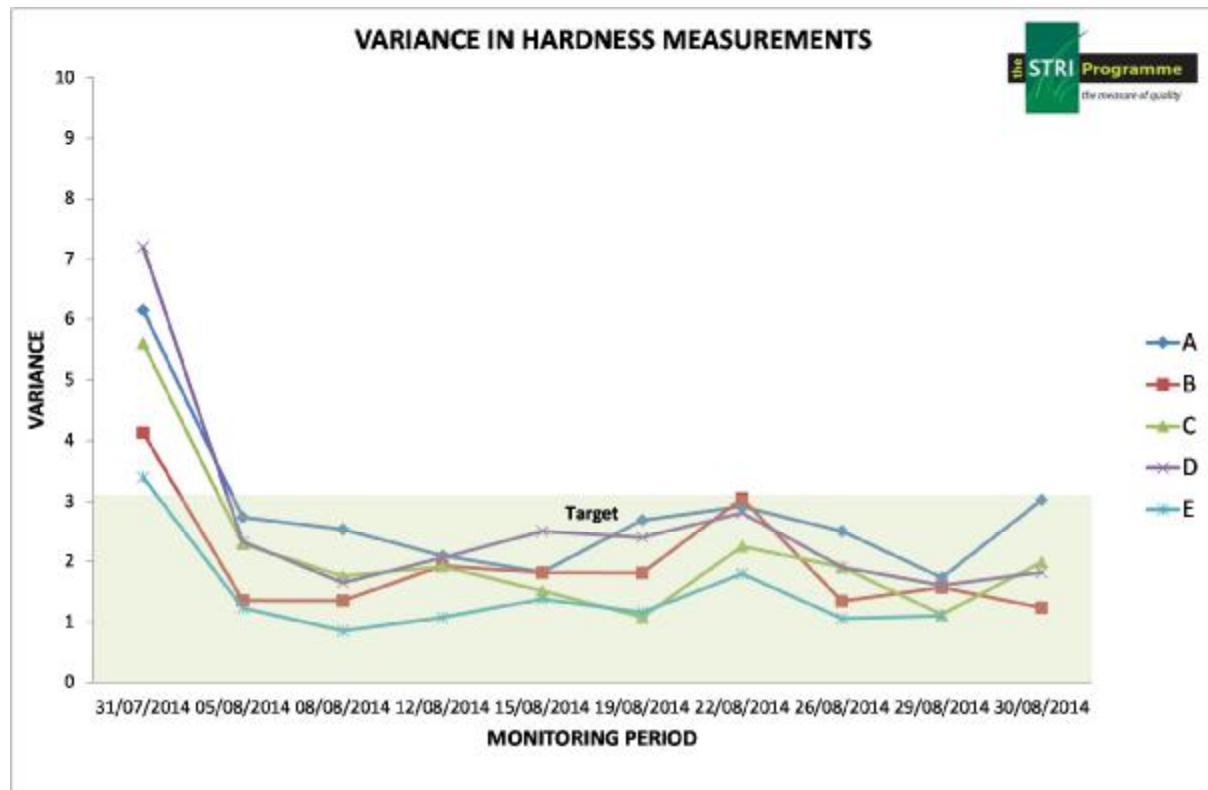


## Surface Firmness

Firmness was measured using a Clegg Impact Hammer with readings taken at each point on a 3x3 grid basis in the same locations as soil moisture. The results are detailed as follows.



- With higher than ideal levels of soil moisture it is unsurprising to see green's firmness below target range. The values have nevertheless remained consistent within and between greens and still supporting a good standard of play.

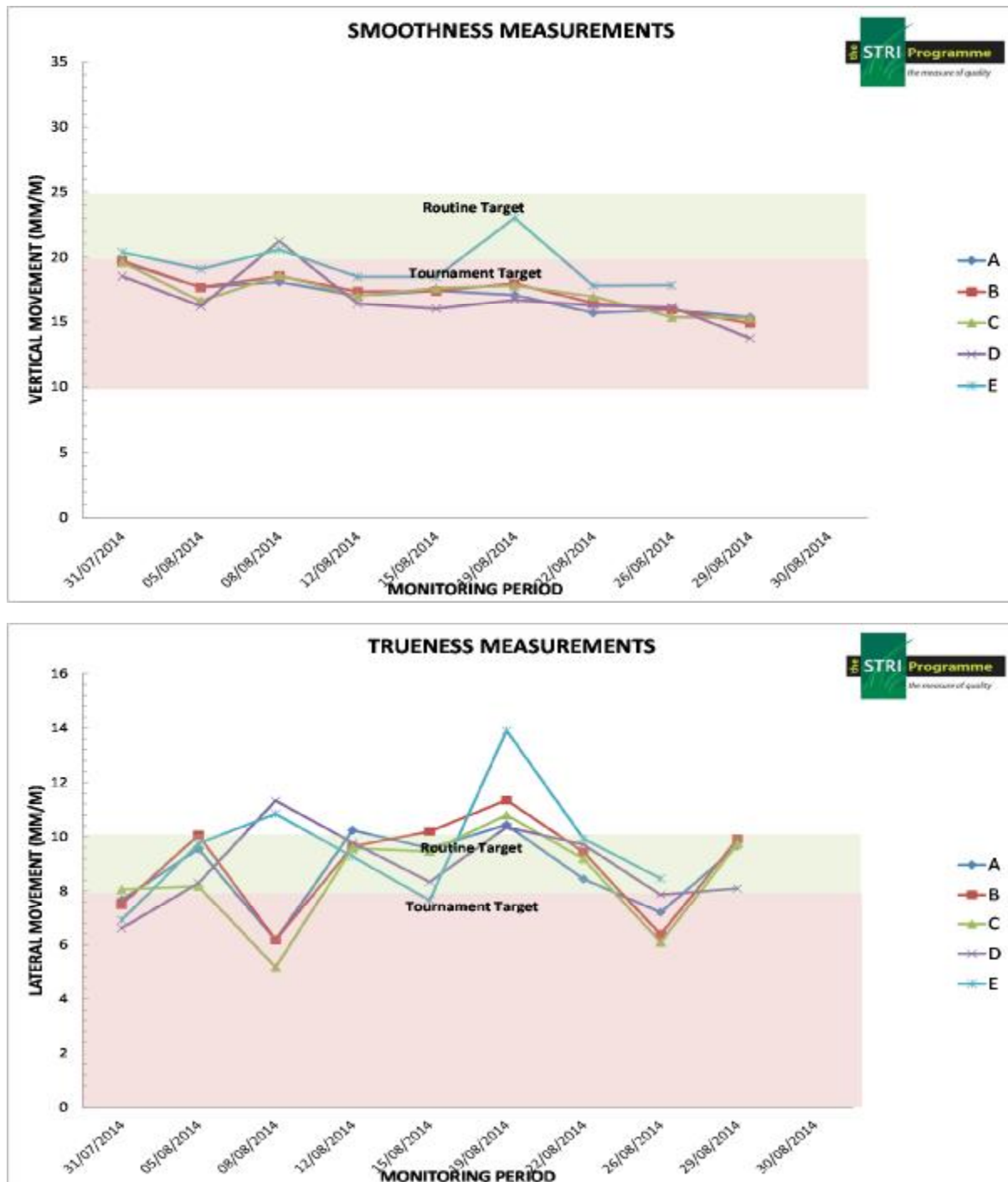


## Smoothness & Trueness

The smoothness and trueness of the greens was measured using the Trueness Meter™. This device measures the smoothness (vertical deviation) and trueness (lateral deviation) of the bowling surfaces with the level of deviation being expressed in mm/m. With these results, lower readings indicate a smoother or truer surface. Six 10m runs were made on each green with the Trueness Meter in a w pattern across the main laying area of the green.

The results for smoothness and trueness are outlined in the following two graphs and compared against our target ranges.



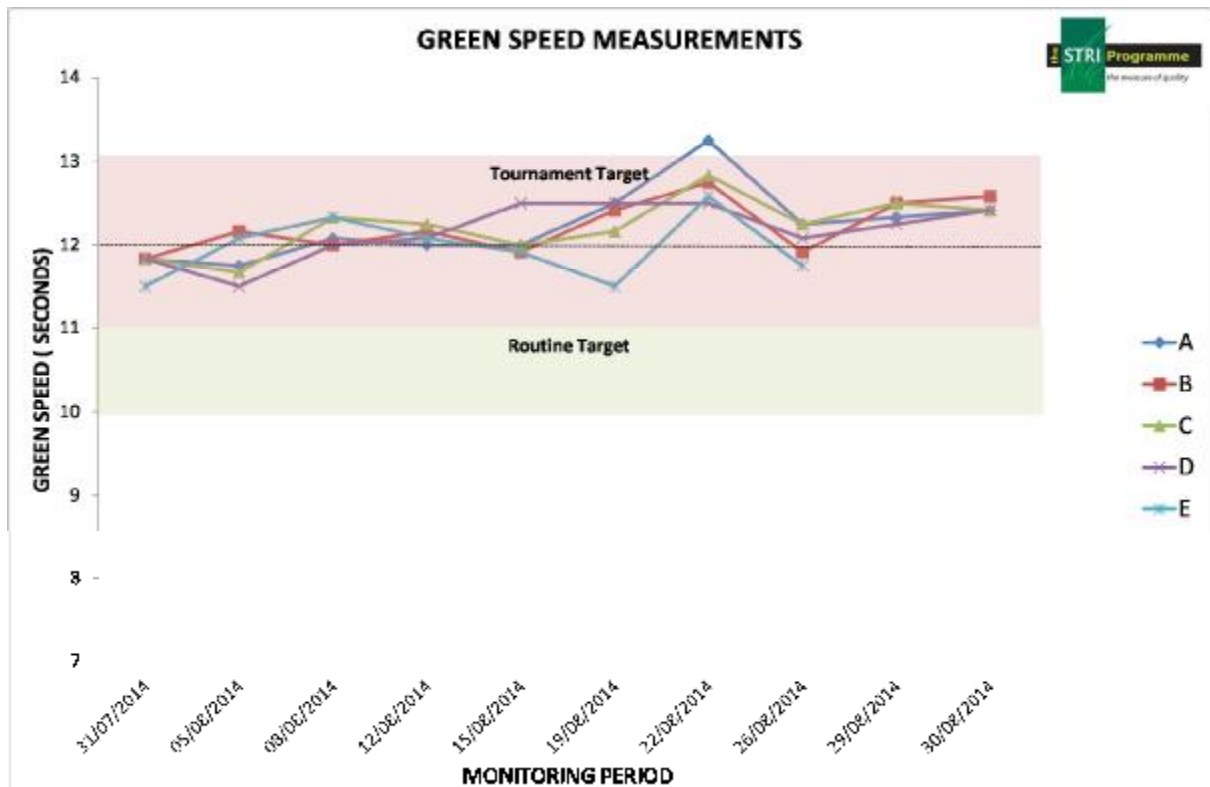


- Trueness meter readings were omitted from performance data on the penultimate day of testing.
- Despite the effects of play and challenging weather conditions, the greens have become smoother as the tournament has unravelled. Maintaining a smooth surface has helped manage green speed and given confidence to the management operations.
- Trueness has a lesser effect on the roll of a bowl but still informs the consistency of the greens and the effects of management operations and wear. In general trueness has remained within target ranges but occasionally seeing some spikes in the data largely as a result of the effects of mowing, creating nap or in the case of green E on the 19<sup>th</sup> August, no set-up being applied at all.

## Green Speed

The speed of the greens was measured using the R/T<sup>2</sup> test using non biased bowls. 6 measurements are taken on each green using a selection of 3 rinks on each. The ideal range for routine play is set between 10 to 12 seconds with tournament preferences of 12 to 13 seconds. It is estimated that measurement with a biased bowl will add a further second to the measurement.

The results of our assessments are detailed in the chart below.



- As discussed in the soil moisture data the greens were running at their fastest on the 22<sup>nd</sup> August when weather conditions were more favourable.
- The greens have increased in pace as the tournament continued and through the last week of championship play were running extremely consistent between greens and at a very good pace.

Signed



Paul Woodham BSc (Hons), MBPR  
Turfgrass Agronomist, Agronomy Services Manager

STRI is completely independent and has no alliances to commercial products, services or contractors. This ensures that our design, project management and advisory services provide the best solutions for each individual client.





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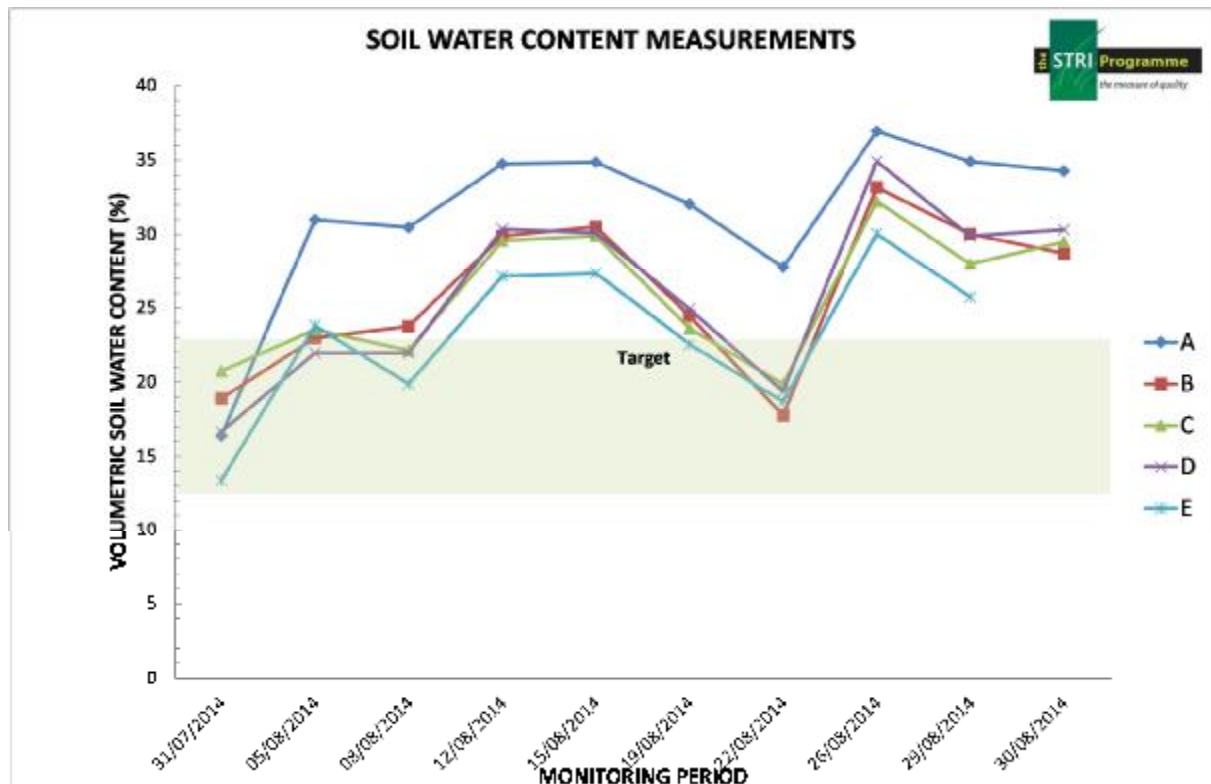
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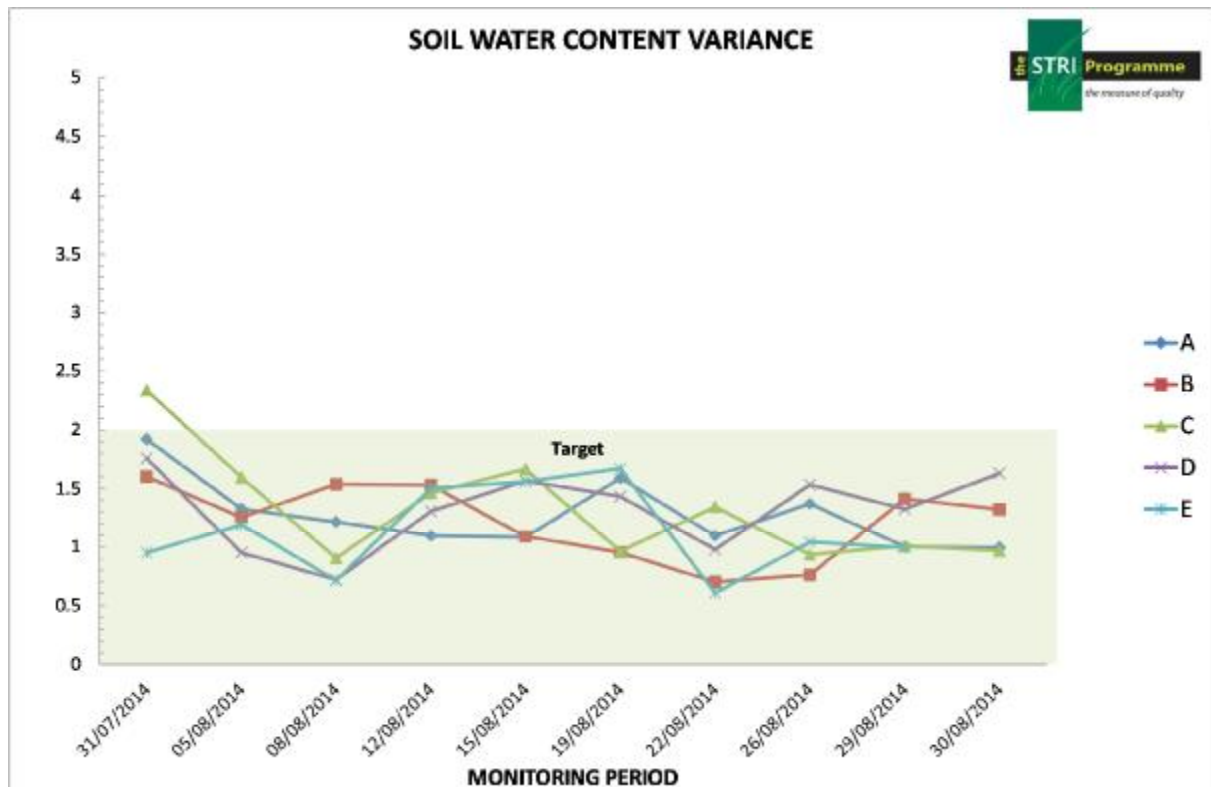
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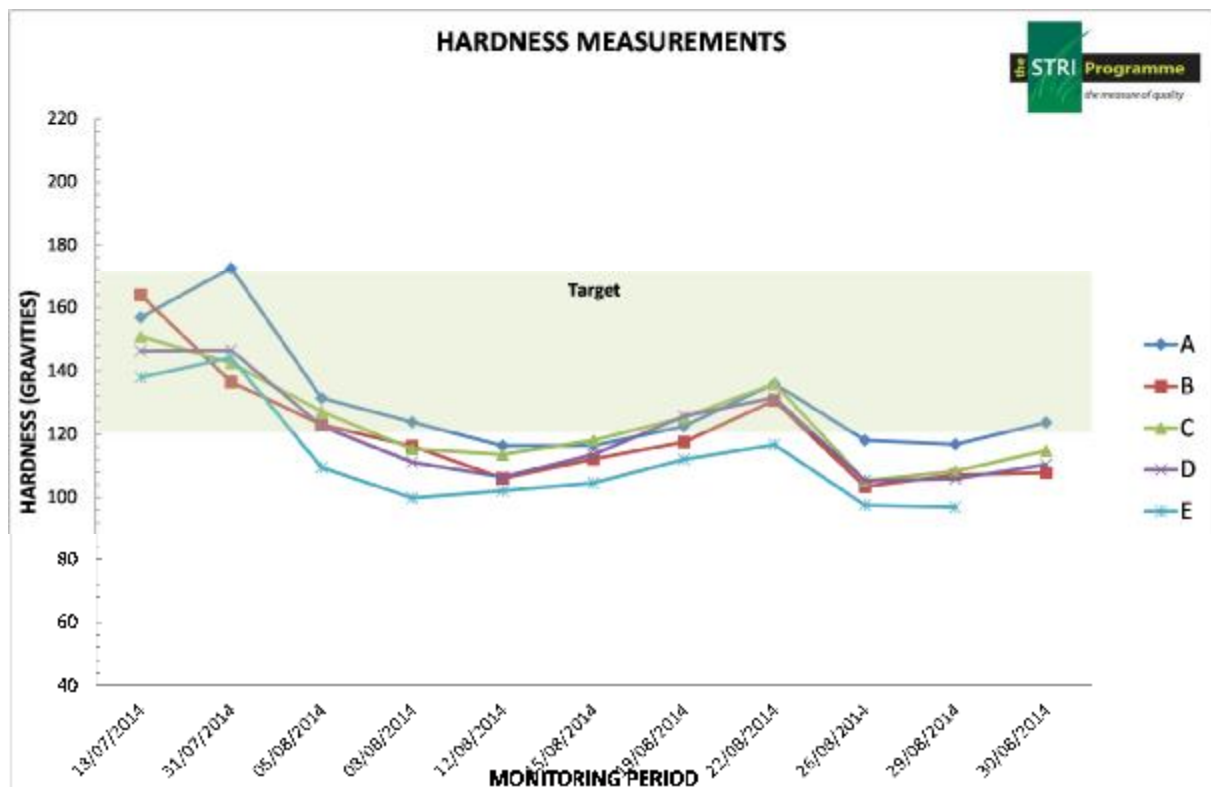


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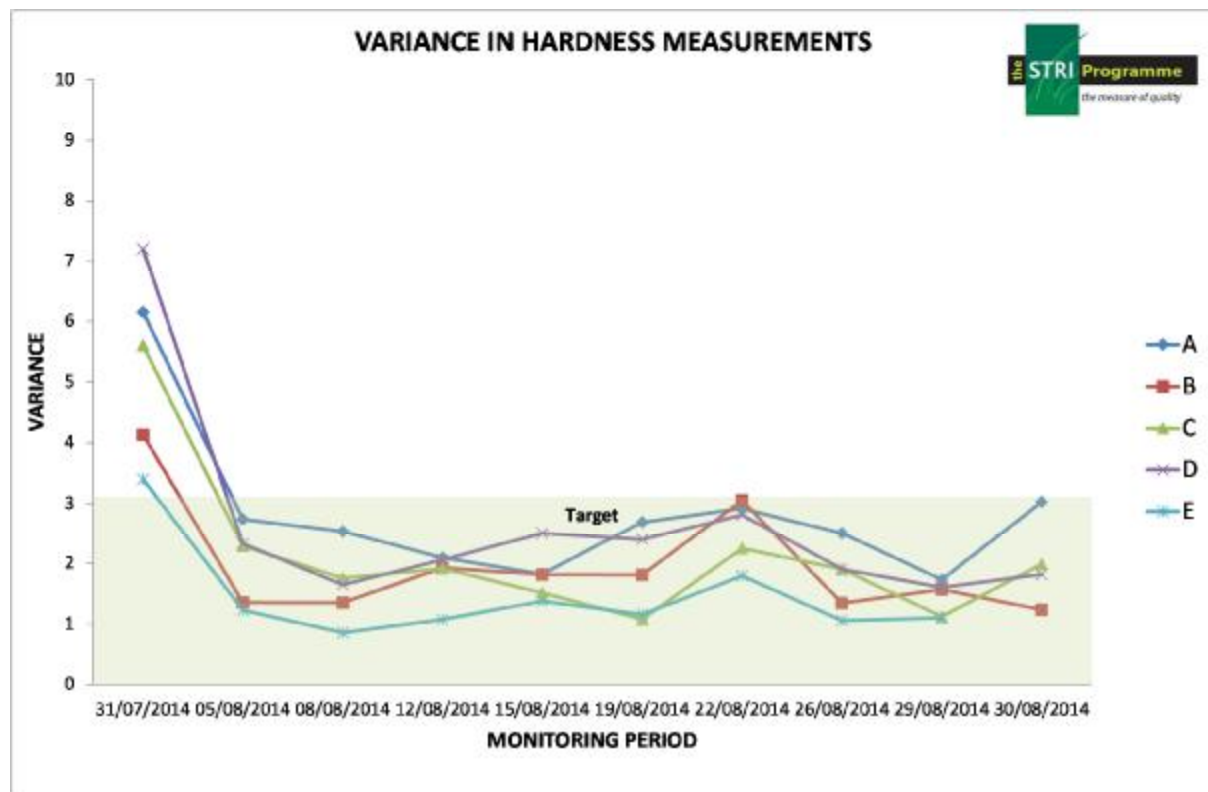


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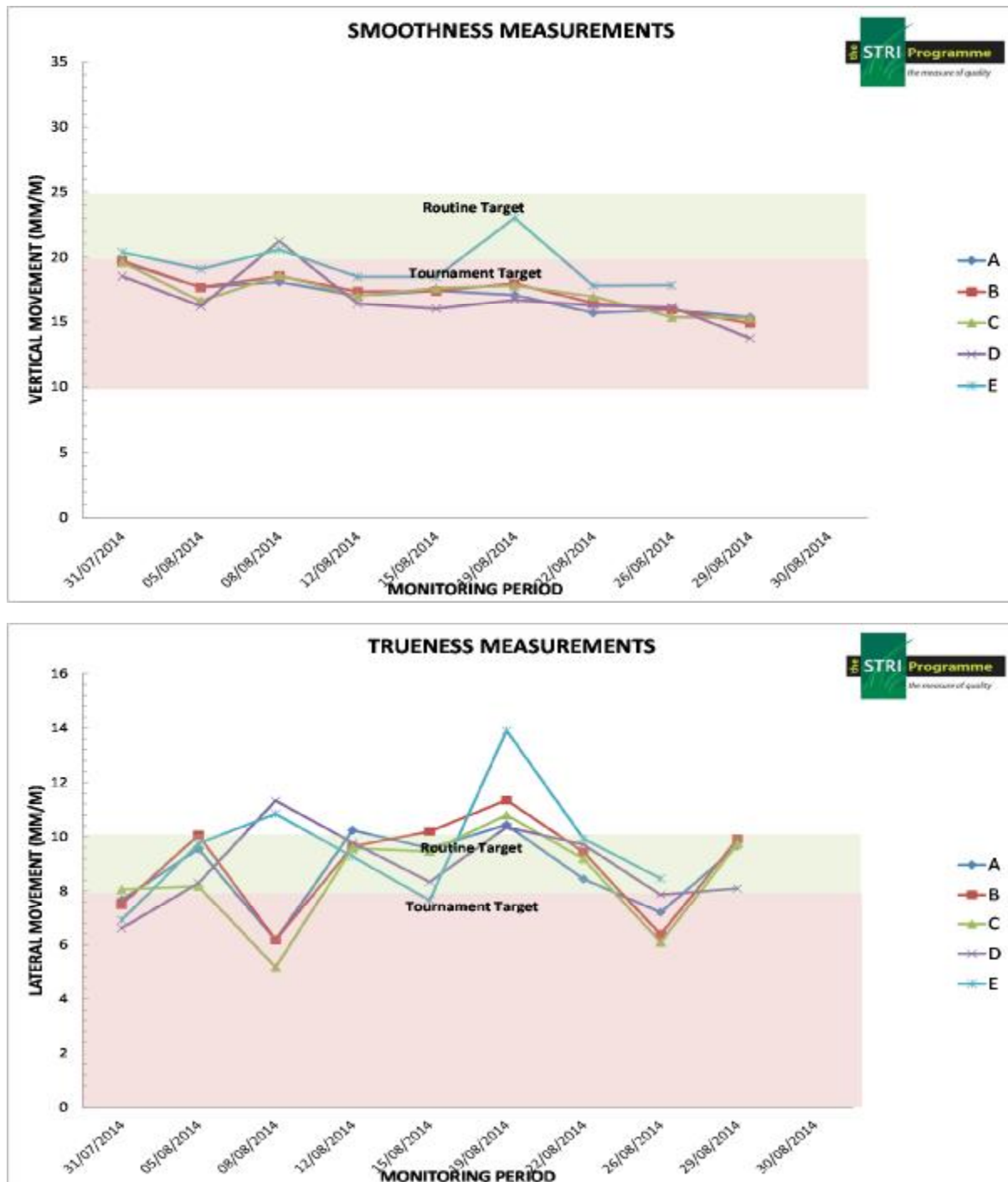


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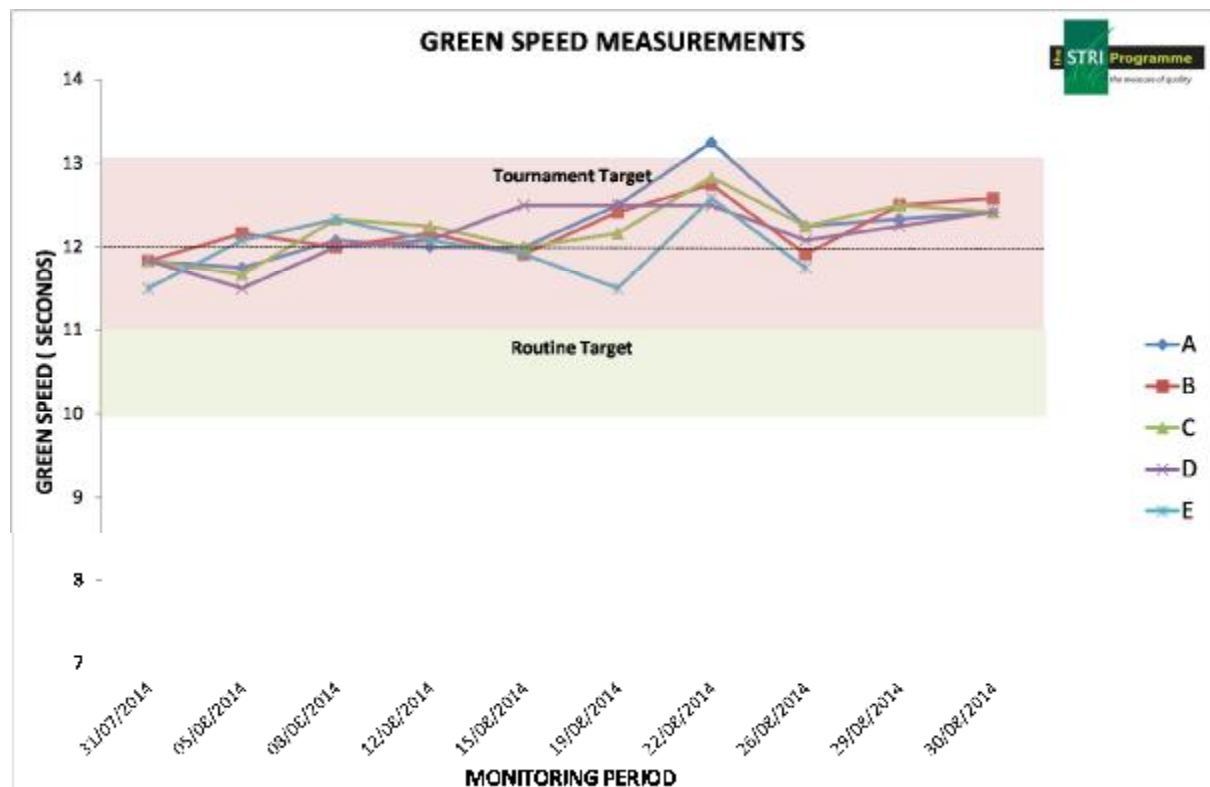


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