

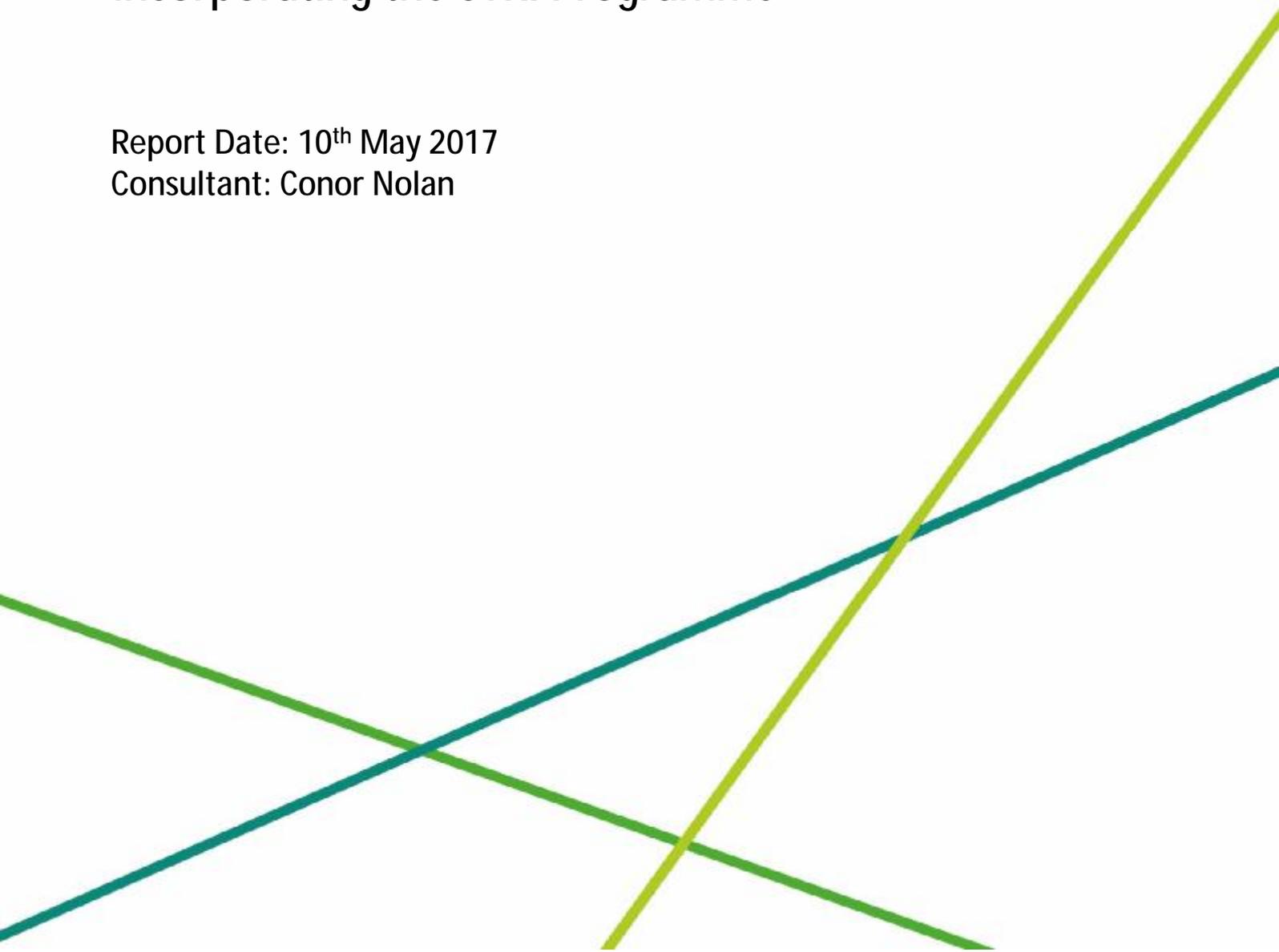


Making great sport happen

CLONTARF GOLF CLUB

Advisory Report on the Golf Course incorporating the STRI Programme

Report Date: 10th May 2017
Consultant: Conor Nolan



Clontarf Golf Club

Date of Visit: 8th May 2017

Visit Objective: To objectively measure greens playing quality in addition to review of overall course condition and provision of general advice on maintenance issues throughout the course.

Present: Mr C Murphy – Course Convenor, Mr P Murray – General Manager
Mr D O' Malley – Head Greenkeeper, Conor Nolan – STRI Ltd

Weather: Sunny with prolonged dry spell. 14°C.

Headlines

- The putting surfaces displayed good early season smoothness and trueness. The truest surface was the 12th due to its better textured bentgrasses. The slowest green was the softest, the 15th green.
- Green speed varied depending upon traffic level and texture. The fastest two greens were the 9th and 12th for two different reasons.
- Organic matter regulation of greens profiles has remained on track due to weekly sand topdressing.
- The aprons were quite grassy due to recent application of granular fertiliser. Due to the dry spell growth to walk offs could not compete with traffic levels.
- The tees were of good vigour, well divoted and of good grass cover.
- Some strategic tree work was welcome with early apparent benefits noted (e.g. 5th green).
- Fairways were quite dry, although the body of grass remained good.
- The bowling green was dry again to the central portion. Due to it pearlwort weed was favoured as was fairy ring.

Key Actions

- Refine the surfaces and allow the vigour to drop back somewhat to develop green speed. As the speed picks up raise the height of cut to favour the better grasses, once speed remains within the target range of 9-10ft.
- Apply Coragen insecticide to the areas on greens where crows are possibly picking for leatherjackets.
- Continue with the current approach to sand topdressing of the greens i.e. 7-8 tonnes weekly.
- Given the dry location it is a key objective to avoid over and underwatering of greens for the next 4-5 months to deliver better consistency of hardness and pace. It will require regular measuring with the moisture meter to guide sprinkler run times.
- Allow the vigour of the aprons to drop back so that they and the approaches are fertilised mainly with the greens.
- Fertilise traffic areas with either 9:7:7 or CRF mini 20:5:10 granular fertiliser once moisture arrives.
- Sand topdressing is due to the teeing surfaces at 25 tonnes per hectare.
- Sand topdressing needs to occur to the new holes that have secondary drainage if they are to drain well. An application is due now at 20-25 tonnes per hectare. Repeat again in September.

Objective Measurements

Measurement	Average	Target Range
Soil Moisture (%)	% (27.6-35.9)	15-25%
Hardness (Gravities)	Gravities (90-109)	85-110 g
Smoothness (mm/m)	18.61-19.42 mm/m	<23 mm/m
Trueness (mm/m)	5.35-11.32 mm/m	<10 mm/m
Green Speed	8 ft 9in – 9ft 9 7in	9-10 ft

Key: In Target Marginal Variance Out of Target

Photo Observations and Comments



Figure 1: The 12th green offered the best playing quality part of which was due to the finer bentgrasses. It was the fastest surface due to that while the 9th was fast due to traffic effects on grass volume. Unlike the soft and somewhat mossy 15th green it was mossy due to dryness to the left side.



Figure 3: Pecking of the surface of the 13th green possibly due to leatherjacket presence. Others were also affected somewhat (e.g. 3rd).



Figure 5: Very good regulation of organic matter has continued since the end of the summer as noted to the 2nd green above. The damper greens (e.g. 14th and 15th) were noted as good. Root depth was generally more than 65-70mm to most except the 8th which was at 50mm.



Figure 2: Immediate stress relief noted to the right side of the 5th green helped by removal of the poplar tree it would appear. The 'new' putting green was of much finer texture now that annual meadowgrass has fined down due to time.



Figure 4: The lower and shaded left side of the 14th green was the softest underfoot like the 15th. Shade was reduced somewhat while airflow was enhanced due to hedgerow cut back.



Figure 6: Wear recovery to the side of the 3rd tee was affected by dryness, like many green walk offs (e.g. 8th).

Photo Observations and Comments (continued)



Figure 7: Better growing conditions noted to the 16th tee thanks to removal of the shade casting evergreens.



Figure 8: The 4th tee is a benchmark for conditioning. Devoting and nitrogen input were keeping up well with the high traffic levels.



Figure 9: The dry conditions affected vigour to the slit drains on the 14th fairway. Despite the dryness ball support was good to it and other fairways, although the plateau on the 12th was less so.



Figure 10: Sample from the 13th fairway profile showing the degree of organic matter build up. It has gone unchecked due to lack of sand input which will see drainage decline over time if not addressed.



Figure 11: Dryness to the central portion of the bowling green favours spread and entry of pearlwort and moss as well as stimulating type 2 fairy ring. Moisture content ranged from 5-35% within the green. Sand topdressing was quite good since September.

Recommendations

Greens

- Gradually raise the height of cut to 3.5mm as pace picks up and hold for the summer. Higher heights assist absorption of sand, favour the finer grasses and can influence the degree of anthracnose disease activity.
- Verticut all greens immediately. Repeat in 4-6 weeks. Groom twice per week. Aim to see the faintest of lines with each treatment. Avoid the perimeter cut.
- Apply sand at rates of 7-8 tonnes per hectare per application each week. Use the heavier rate if rain is forecast. Apply additional sand to damper greens (15th) and sections (14th and 18th).
- Apply 4:0:4 plus 9% iron at 35g/m² to help crowd out the moss on the 12th. The 12th and 13th will require additional nitrogen on occasion given their sandier profile.
- Hold off overall fertiliser application for three weeks. Resume then to supply 0.35g of nitrogen every 2-3 weeks and not 0.4g/m². The intention is to increase pace without loss of density. Higher nitrogen level slows the pace by increasing friction between ball and the turf.
- Apply Coragen insecticide at the highest off label rate for control of leatherjackets immediately after the visit to areas where birds are pecking.
- In the past, the surfaces have tended to suffer most during the summer either due to anthracnose disease or drought. The direction of the wind can play havoc at times. Now that you have individually controlled sprinklers they help against localised moisture differences. However, to achieve more consistency within a between greens you need to adjust sprinkler run times based on moisture measurement. You will need to check the moisture status on 3-4 indicator greens (e.g. 3rd, 7th, 12th and 15th) every one to two days using the moisture meter to measure. Adjust the sprinkler run times to bring the moisture content within 15-25% (upper 60mm) at all times. Bearing that in mind the 15th green didn't require watering for a few days to allow it to dry and firm up. Damper parts and greens include the 1st, 2nd, left hand side of the 14th and 18th.
- Ensure to spread the wear and tear to all parts of greens.
- By right the odd faster green (e.g. 9th, 12th and 13th) should be mown at a higher height of cut by for example 0.25mm to help with consistency.
- Place a plastic hawk at one green where birds are pecking to determine its effectiveness before widespread use.
- Aerate with 8mm diameter tines mounted on the Aercore to reach a depth of 100mm after the visit. Repeat 6 weeks later.
- Roll no more than twice per week in the coming months. The less the better to favour the finer grasses.
- Apply Headway (azoxystrobin and propiconazole) fungicide in a preventative manner to control August vulnerability to anthracnose. Apply at the end of July per the label.
- Overseed the practice chipping green in May with browntop bentgrass seed, as practiced last September to the 18 hole greens.
- Overseed the greens in mid- September using 13mm solid tines to prepare 'plant pots' and sow with good quality browntop bentgrasses (e.g. Arrowtown, Greenspeed, Manor, Egmont). Fill the 'pots' with sand to within 4-5 mm of the surface before applying seed. Sow at 20-30kg/hectare, using dried sand to help distribute the seed. Topdress once the seed is worked in. This is a key objective.

Green Aprons, Surrounds and Approaches

- Hold off with application of (9:7:7) to the aprons and approaches for as long as possible. Excess nitrogen will only favour the annual meadowgrass component over ryegrass seedlings. Fertilise with the putting surfaces each time.

- Apply 9:7:7 to any weaker or trafficked surrounds when rainfall arrives to bring on uniformity and then on an on-going basis to counter wear e.g. approach to 12th and left side of the 8th and 13th.
- Remove the diseased hawthorn tree to the rear of the 7th green.
- When ground conditions allow continue to make light application (20-25 tonnes per hectare) of sand to paths and pinch points on surrounds (e.g. 13th surrounds) in the coming months. During the main growing season is when most prevention against winter wear is made.
- Continue to collect clippings (main food source) to aprons and approaches year-round to reduce earthworm casting over time.
- Overseed the aprons/approaches in September with 70% mid green coloured dwarf perennial ryegrass (e.g. Barolympic, Chardin, Claudine and Bargold) and 30% slender creeping red fescues. Use 16-19mm diameter solid tines set to a shallow depth to form 'plant pots' Sow at a rate of 60-80kg/hectare using a drop spreader to apply seed before working the seed to the 'pots' with a turned upside down tees mat.

Tees

- Apply 9:7:7 at 20g/m² to tees and the sandy surrounds on the 2nd/9th complex every 4-5 weeks. Or apply ICL Sportsmaster CRF 20:5:10 or equivalent at the bag labelled rate in three weeks and again in August.
- Sand the tees and paths now and on occasion at 20-25 tonnes/hectare in the coming months.
- Use a knife to scratch and refine the coarse textured grass patches on the new 13th tees.
- Plan to core the relatively new tees (e.g. 3rd and 11th) again in October with 19mm core tines.

Fairways

- Water the new fairways well after the visit and during the summer to address light drought to the secondary drainage lines.
- Sand topdress the new holes as soon as moisture balance is restored. Apply at light rates of 20-25 tonnes per hectare then. Repeat in September and October. The new holes should receive in the order of 80-100 tonnes of sand in total per hectare per year to prevent deterioration of the overall drainage.
- Maintain the fairway at a height of 14-15mm for the summer.
- Plan to overseed the older fairways at the end of summer once they are not too competitive/vigorous. Sow with slender creeping red fescue (e.g. Viktorka, Barcrown and Cezanne) in September, preferably towards the middle of the month. Overseed with a disc seeder that forms closely spaced drills at a rate of 125kg/ha. Better results would be expected from seeding into sandier profiles. Sanding is not recommended to any great degree though at this point given the increased demand that would place for an automatic irrigation system over time. The more fescue that can be established the better the lie quality and the greater the reduction in earthworm casting during the damper months.

Bowling Green

- Do not apply sand again until the playing season is over.
- Restore the moisture balance to the central portion of the Green. Aim to keep the moisture content between 15-25% through watering to it and the entire Green. Drought will favour pearlwort weed, fairy ring and moss on the other hand.
- Once the vigour is restored through watering fertilise similarly to the golf greens i.e. 0.35g of nitrogen/m² every 2-3 weeks. Restricting nitrogen to that level will achieve most speed. Drying down below the target moisture content is to be avoided as a means of promoting pace given the increase it brings to pearlwort, moss and fairy ring.
- Maintain the height of cut between 3.5 and 4mm for the main season.
- Application of Headland Relay herbicide shall be delayed until September to control pearlwort. It will need to be accurately applied then under good growing conditions.



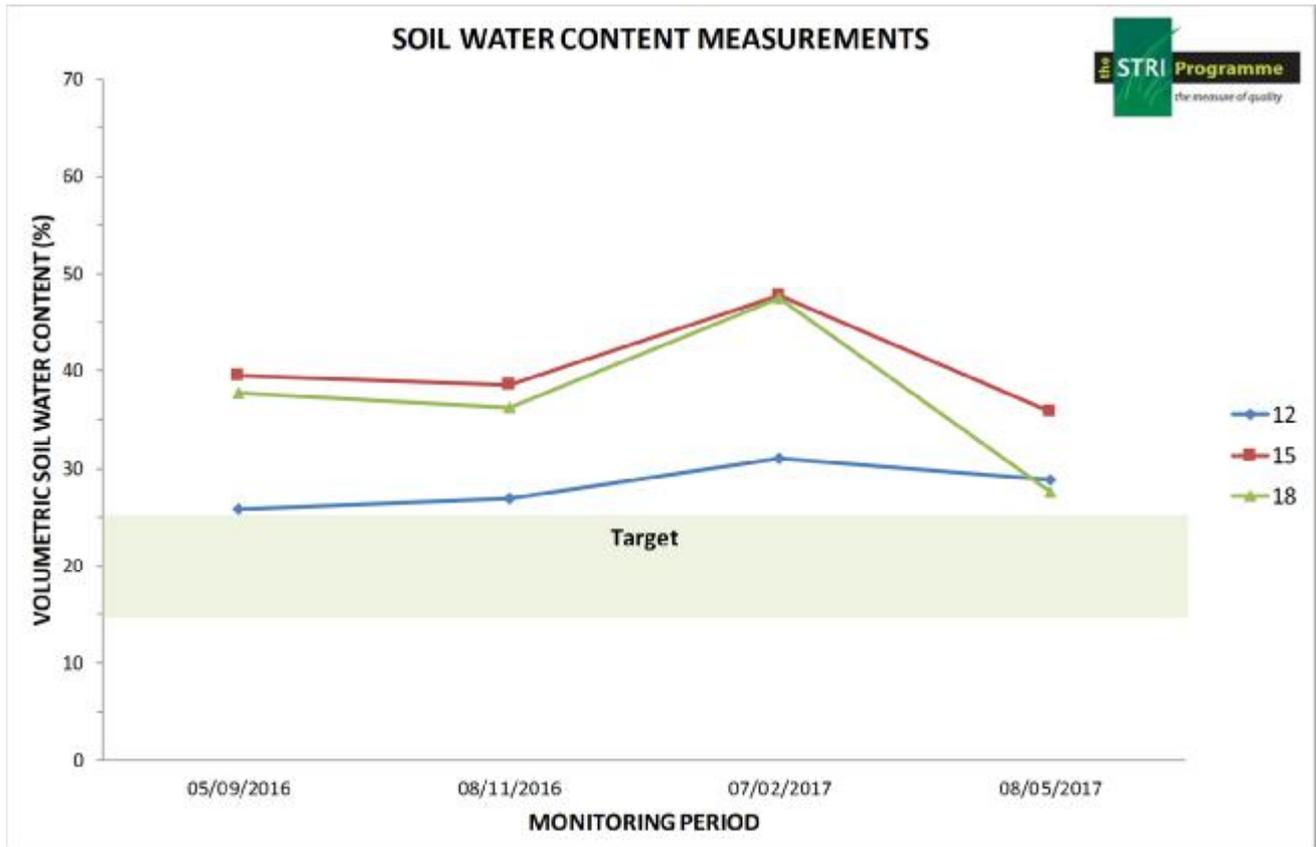
Signed

Conor Nolan

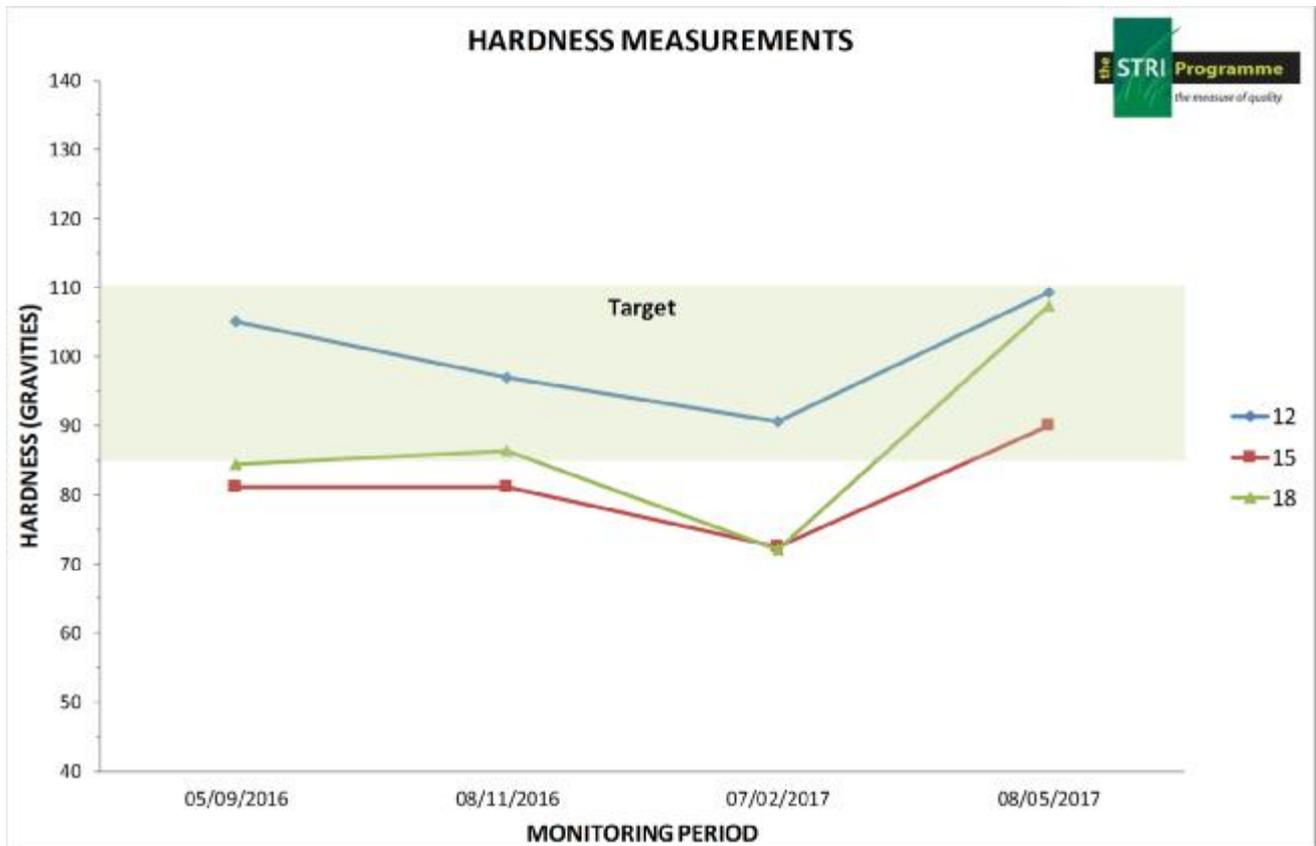
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Objective Data

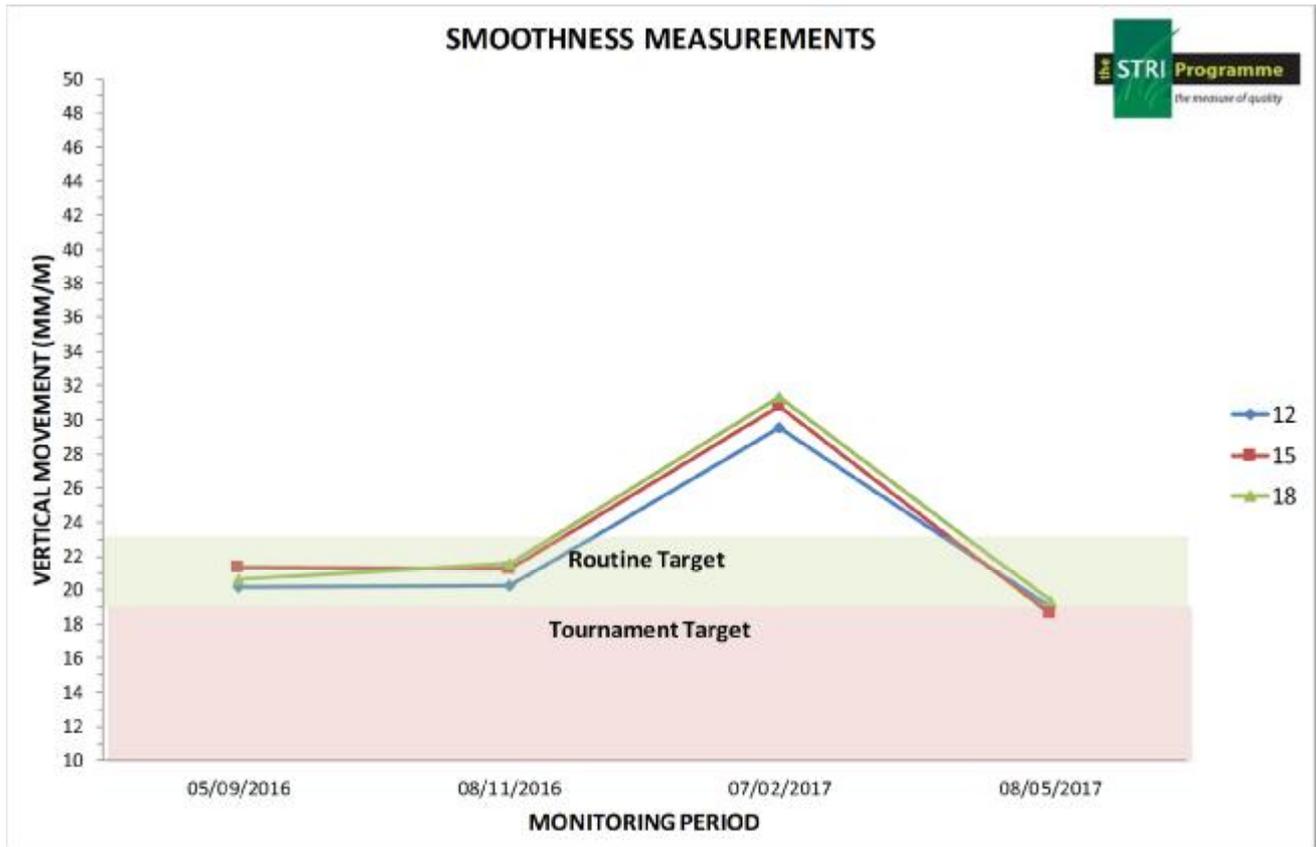


Objective Data Graph 1:

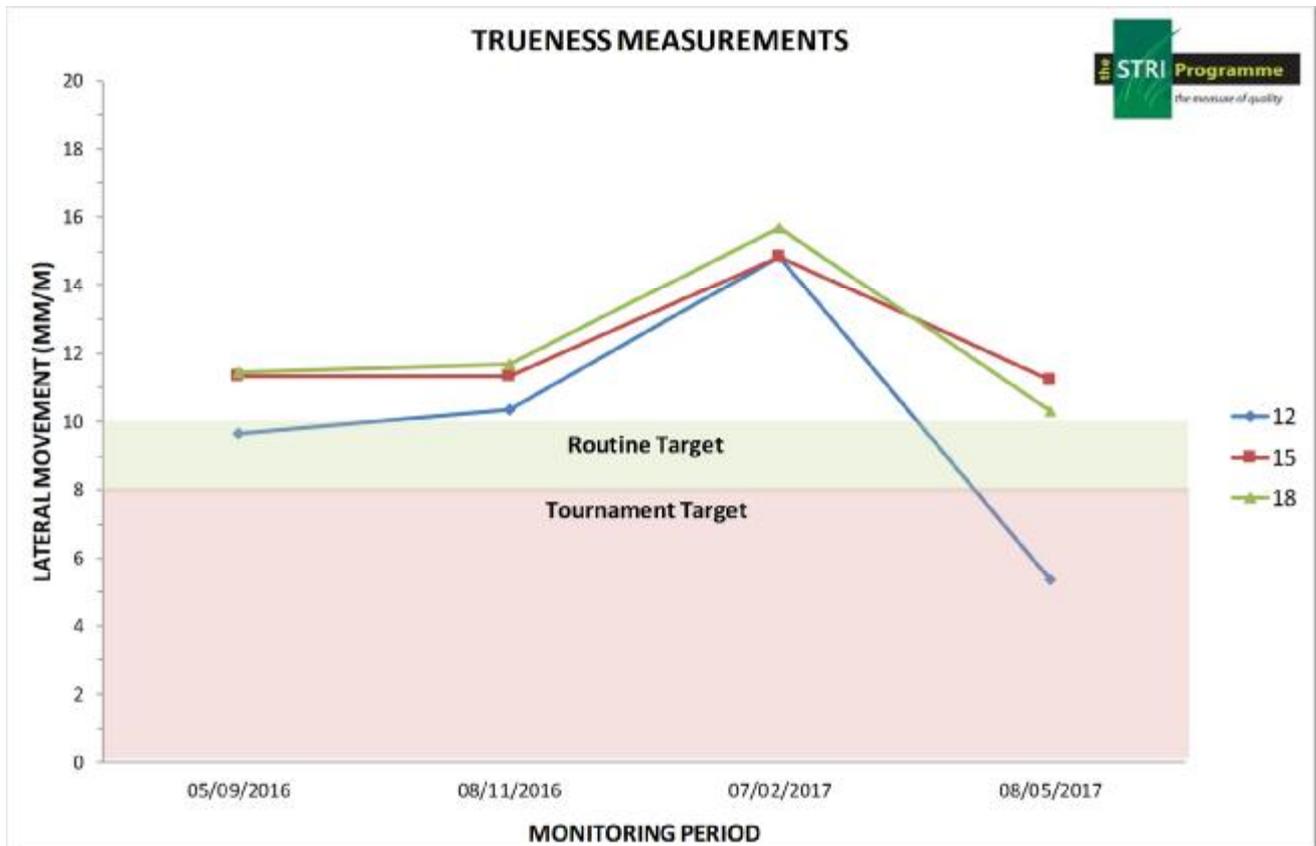


Objective Data Graph 2:

Objective Data (continued)

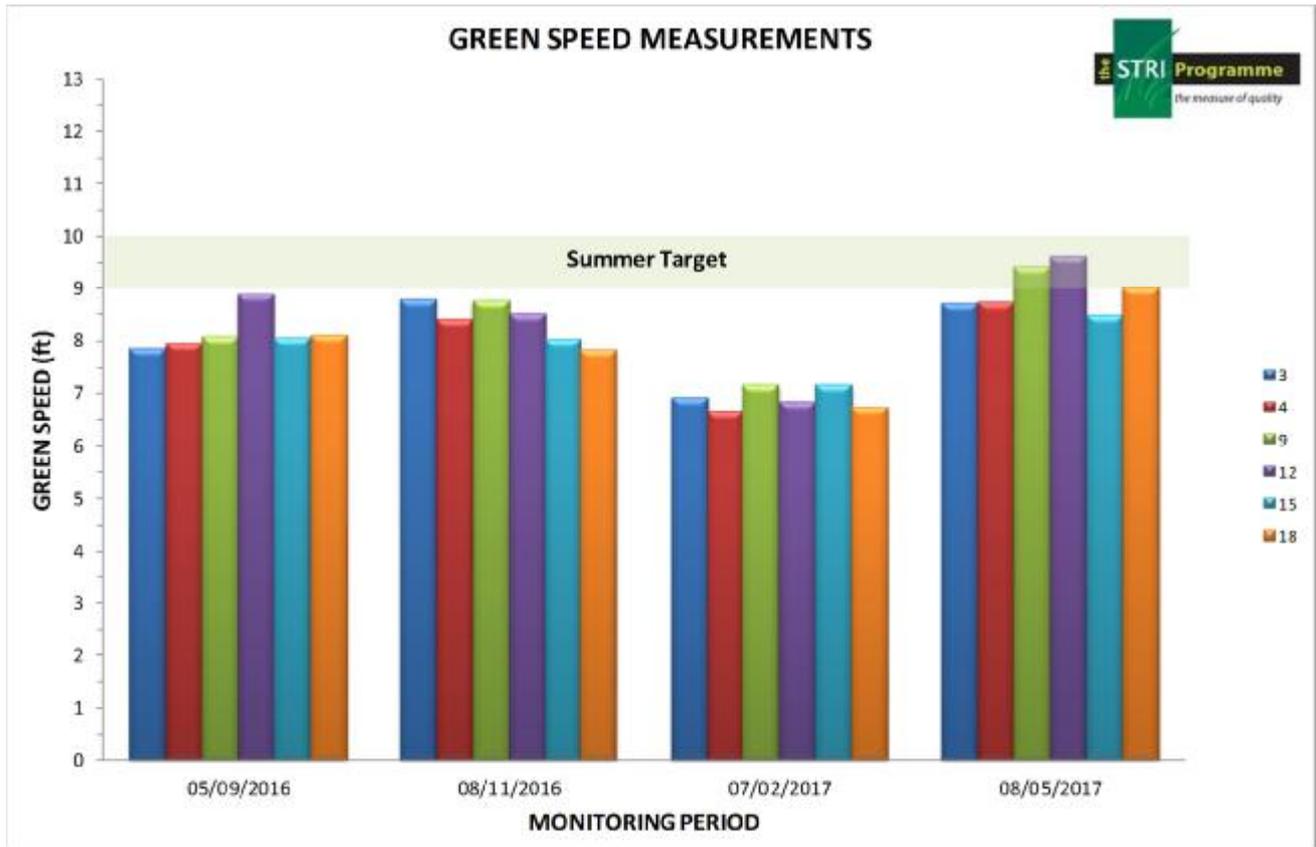


Objective Data Graph 3:



Objective Data Graph 4:

Objective Data (continued)



Objective Data Graph 5: