

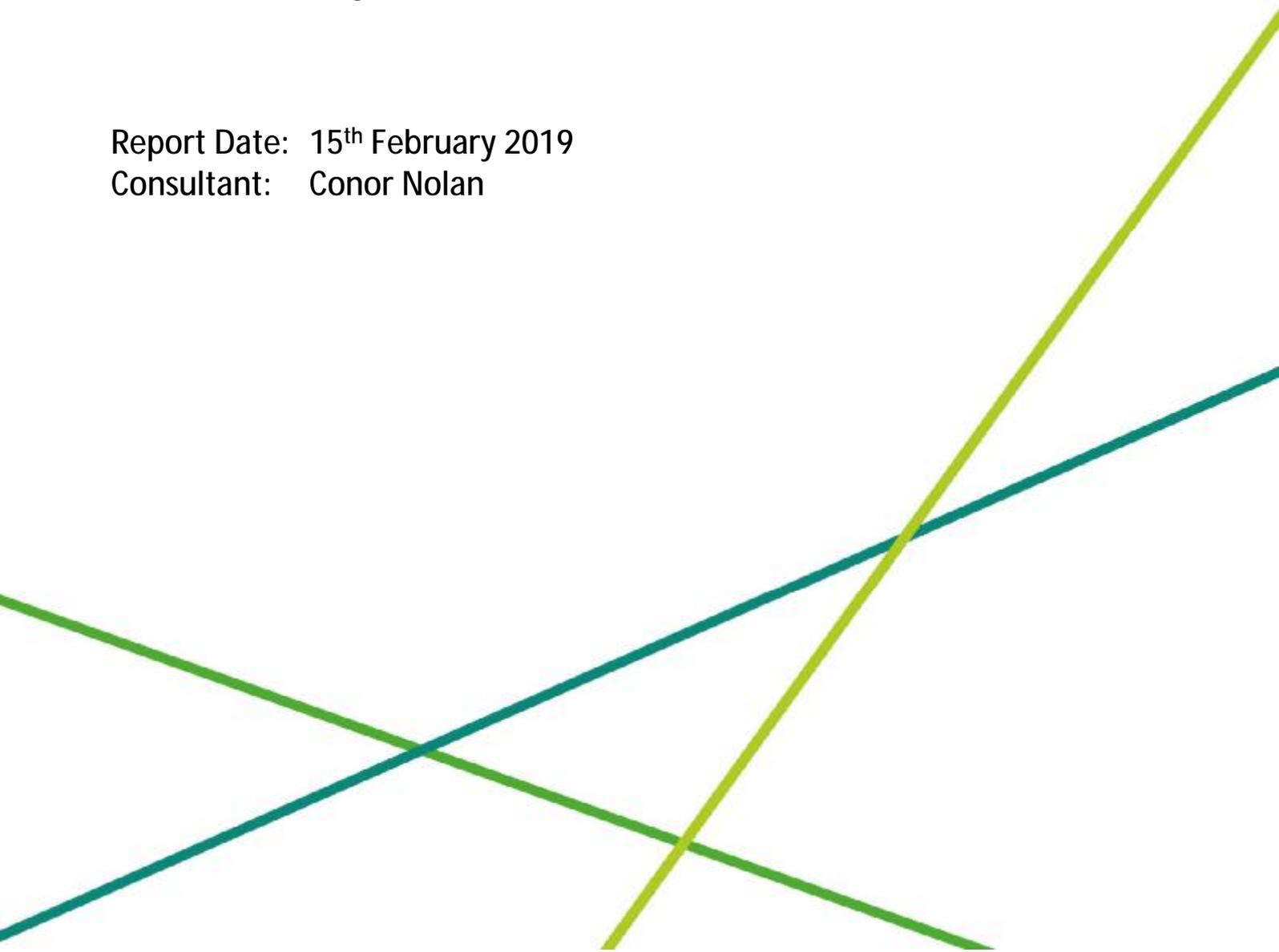


Making great sport happen

# CLONTARF GOLF CLUB

## Advisory Report on the Golf Course incorporating the STRI Programme

Report Date: 15<sup>th</sup> February 2019  
Consultant: Conor Nolan



Date of Visit:	14 <sup>th</sup> February 2019
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 I Maguire – Club Chairman Mr J Mcloughlin – Course Officer Mr P Murray – General Manager Mr D O' Malley – Head Greenkeeper Conor Nolan – STRI Ltd
Weather:	Sunny spells and mild. 10-14°C.

## Headlines

- The putting surfaces had come through the main disease period very well indeed, in contrast to last year.
- Ball roll was quite good to the putting surfaces as was pace. Surface firmness had suffered somewhat due to the decision to restrict sand topdressing over the last few months as sand increases disease pressure.
- The main blemishes to greens were found to the perimeters of the 1<sup>st</sup> and 8<sup>th</sup>, most probably a legacy of last year's drought.
- The aprons were holding up very well with reduced casting a possible observation.
- Some of the approaches were patchy due to fox digging in the main. Approaches could be firmer.
- It was pleasing to see the placement of new sand in the bunkers together with reported removal of sediment to some.
- Weak turf remained to some bunker surrounds (e.g. 1<sup>st</sup>, 3<sup>rd</sup>, 15<sup>th</sup> and 16<sup>th</sup>). Efforts were made to address the greenside bunker closest to the 3<sup>rd</sup> green but were not quite right.
- Tees cover was retained well due to the winter loose mat policy. Tees were beautifully firm thanks to programmed sandings/coring.
- Were it not for earthworm casting the fairways would have offered very good lie quality for the time of year. Shaded locations (added dampness) and the mild winter weather favoured their surface activity.
- The bowling green had progressed well but was still somewhat mossy/thin.
- Tree work/removal continues but it is a slow process. It is necessary to provide drier conditions to all surfaces but mainly to the fairways at this stage as dampness favours earthworm activity.
- Overall the course had withstood the winter to date very well and should be in good condition entering the main season.

## Key Actions

- While sanding next autumn/winter will not be ruled out at this stage it is important to sand greens well before then. Sand each week until then at light rates of 4-7 tonnes per hectare. Reach the higher rate as regular growth arrives later in spring.
- Sand the bowling green in a similar manner to the above even during the summer.
- Fertilise the bowling green and garden green with Invigorator Plus 4:0:14 now and once more before April. Apply at 20-25g/m<sup>2</sup>.
- Plan to overseed the greens three times this summer with the less disruptive Dynaseeders. Sow at browntop bentgrass each time at 25kg/hectare.
- Plan to overseed the aprons in late April with dwarf ryegrass and fine red fescue seed.
- Address the 3<sup>rd</sup> greenside bunker immediately. Dig out excessively sandy other areas in the next few weeks if time allows. Grass with imported ryegrass/fescue turf.

- Include the approaches with the sand topdressing tees programme. Make three applications of sand at 20 tonnes per hectare before June.
- Apply 30:0:0 at 35 litres per hectare to teeing surfaces each month. Apply additional as 9:7:7 at 20g/m<sup>2</sup> to the par threes every 6-8 weeks.
- Plan to overseed the fairways at the end of the summer (late August) with straight red fescue seed at 125kg/hectare.
- Tree work should continue with removal of the less valuable and less strategically important poplars and evergreen trees (e.g. Leyland cypress and Monterey cypress).

## Objective Measurements

Measurement	Average	Target Range
Soil Moisture (%)	% (36.7-46.2)	20-25% (summer)
Hardness (Gravities)	Gravities 75-84	85-110
Green Speed	7ft 9 in – 8ft 11 in	8.0-8.5ft (low season)

Key:      In Target      Marginal Variance      Out of Target

## Photo Observations and Comments



Figure 1: Best sward density noted to the large 2<sup>nd</sup> green. The smaller 9<sup>th</sup> and 18<sup>th</sup> were not quite as dense due to traffic concentration. Most impressively, only the very odd disease scar was found throughout due to good cultural practices and only four applications of fungicide since September.



Figure 3: Fox damage noted to the front of the 10<sup>th</sup> green apron. Similar was seen to the 7<sup>th</sup>. Mower scuffing appeared to be the cause of marking on the 16<sup>th</sup> approach which was slightly soft. Note the relatively low level of earthworm casting to the apron, probably due to clipping removal.



Figure 5: Fresh sand added to the 18<sup>th</sup> bunker which was typical. Assuming sediment was removed all bunkers will drain more quickly. Realise that sand needs to be replaced every now and then due to washouts and movement of fine particles within the sand to lower parts.



Figure 2: 3mm of unchecked organic matter had accumulated at the top of the profile on the 12<sup>th</sup> green which was typical of all. The mild weather over the last few months had contributed while no sand was purposely applied to avoid heightening the disease pressure after last year's outbreak.



Figure 4: Loss of bunker edge due to raking needs to be addressed to some bunkers such as the 3<sup>rd</sup> above. The upper side edge is still too unstable and sandy.



Figure 6: The 13<sup>th</sup> tee was firm and typical of most. Good sand accumulation was noted since the summer. They were slightly hungry only.

## Photo Observations and Comments (continued)



Figure 7: Heavy earthworm casting on the 14<sup>th</sup> fairway due to reduced air movement/sunshine levels. Casting varied throughout and depending upon surface dryness. Nitrogen level was good with just the new part of the 12<sup>th</sup> slightly less than the rest.



Figure 8: The bowling green had progressed well. moss levels are less while no pearlwort weed was found. 3-4mm of organic matter build up was noted since the last sand dressings were made last spring. Sward density and firmness need to progress.

## Recommendations

### Greens

- Apply ammonium sulphate at 20kg/hectare in 400 litres of water when needed from now until end of March sometime. The application interval should aim to maintain good density/evenness without stimulating the annual meadowgrass. Resume with your applications of NPK liquid fertiliser every 2-3 weeks once milder temperatures arrive. Overall there is a good understanding of nutrient demand. Speed should be around 8.5-9.5ft if fertility is correct for the coming months.
- Apply ICL Invigorator Plus 4:0:14 plus 9% iron to the garden green to build density and counter moss now and twice more before May. Apply at 20-25g/m<sup>2</sup>.
- Hold the current height of cut (4.75mm) until the end of March. Gradually lower afterwards to reach the main season height of cut by early May. Mow between 3.25mm and 3.5mm only choosing the lower height if pace is not quite adequate and if the sward texture is slightly less well refined. The higher the height of cut the easier it is to integrate sand and the more the bentgrasses are favoured.
- Aerate with 8mm tines every 6 weeks to 100mm depth to help rooting and surface water removal.
- Plug out as much pearlwort (e.g. 3<sup>rd</sup>, 5<sup>th</sup> and 16<sup>th</sup> greens) and ryegrass (3<sup>rd</sup> green) as you can before replacing with browntop bentgrass plugs from the garden green.
- As the spring progresses groom on occasion to control the leafiest old bentgrasses.
- Plug out the larger bare spots on the perimeter of the 8<sup>th</sup> and indeed the 5<sup>th</sup> now. Replace with plugs of bentgrass from the nursery or side of the garden green.
- Repair old ball marks well, which is especially important during the off-season. Do so by removing the centre and pressing in the turf from the side in a neat manner. Remove small bits of silvery thread at the same time.
- Sand at light rates of 4-5 tonnes per hectare each week in the coming weeks. Increase the rate to 6-7 tonnes per hectare per week as regular growth arrives later in spring. Increase slightly if rainfall is guaranteed. Target organic matter content for the upper 0-20mm section is 3.5%.
- Mowing of the perimeters should occur only on occasion until April to remove the light triplex ring noted, and to help the weak right side of the 1<sup>st</sup> and 8<sup>th</sup> perimeters.
- To the lower lying part on the 10<sup>th</sup> where ponding occurs and to the soft left side of the 18<sup>th</sup> verti-drain with the 20-25mm diameter solid tines again now to the 15cms depth. Apply no heave. Backfill with kiln dried sand when dry. Brush in the sand to fill the channels.
- Commence application of the wetting agent programme in March. Narrow the interval to every three weeks this year. Aim to maintain the moisture content during dry spells at 20-25% in the upper 60mm (Theta probe).
- Make one more application of dew dispersal agent (e.g. Magnum Recoil) in the coming weeks before increase in mowing makes it less worthwhile. Apply according to the label recommendations.
- Plan to overseed greens with browntop bentgrass (Bar All Bent) three times this summer using the less invasive Dynaseeders mounted on the triplex mower (offered by Harris Turf Improvements). Sow at 25kg/hectare and maintain the moisture content in the upper 60mm at 20% for 4-5 weeks afterwards to help establishment.
- Next early September aim to remove the old coarser bentgrasses on the 18<sup>th</sup> green with an application of Stratos Ultra grass selective herbicide at the highest labelled rate of 4.0 litres per hectare. It may require a further application the following year. It is quite probable that it will take until early May the following year to achieve recovery. Rest over the winter would help speed up the recovery process. This is a process that has proven successful elsewhere since the chemical first became available 18 months ago. The annual meadowgrass will not be affected. By removing the old bents speed and appearance will be enhanced.

## Greens Aprons, Surrounds and Approaches

- The modified bunker at the 3<sup>rd</sup> green complex needs to be re-addressed very soon, and preferably before the end of March to reduce the risk of drying out. Remove all excess sand outside the bunker back to the original soil level. To provide more certain stability on the green side face revet the last 20cm of the face. Once all sandy material is removed) or allow the turf to hang down. Trim the latter once the turf has rooted on. Water the turf to maintain vigour during dry periods.
- Whether excess sand from sand splash around bunker edges shall be addressed this time should be determined by the ability to complete the works within the next 2-3 weeks. Obvious examples that need to be addressed include the left side bunkers on the 1<sup>st</sup>, 15<sup>th</sup> and 16<sup>th</sup> green complexes. Lay imported ryegrass/fescue turf over the original soil level. Keep well watered and roped off until the turf has bedded in.
- To bare areas found to the approaches/aprons from mower scuffing/fox activity prick-in seed (see mixture below) in April. Use a hand fork to make multiple holes before lightly brushing in seed. Take care not to turf mowers sharply or in a fast manner in those areas.
- Maintain the current approach to mowing the aprons/approaches with the triplex mower set at 10mm height of cut.
- Fertilise aprons and approaches when putting surfaces are being fed in the months ahead. Make the odd extra feed if uniformity begins to wane.
- Apply 9:7:7 at 20g/<sup>2</sup> to the 12<sup>th</sup> and 13<sup>th</sup> green surrounds on an on-going basis as needed. We need to pay attention to that level of detail.
- Overseed aprons/approach around the end of April. Sow then with 70% mid green coloured dwarf perennial ryegrass (e.g. Barolympic, Chardin, Claudine and Bargold) and 30% slender creeping red fescue seed. Use 18-19mm 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. Do not use a brush to work in the seed or the dimple seeder to sow. Sand only once seedlings emerge. Deploy a contractor (Mark Harris) if there is lack of available hours in-house.
- Make three moderate applications (20-25 tonnes per hectare) of sand to all approaches and pinch points on surrounds (e.g. 13<sup>th</sup> surrounds) in the coming months before June.
- To the bared ground beneath the trees to the rear of the 8<sup>th</sup> green complex a decent depth of topsoil (15-20cms) should be placed firstly to give any subsequently laid turf a chance to survive in this harsh environment (tree roots and crown). Lay imported ryegrass/fescue turf once soil is spread/firmed. Keep well watered and roped off until early summer/good establishment.
- Pruning of tree roots with the min-digger is supported to the right of the 1<sup>st</sup> green complex and the rear of the 8<sup>th</sup> green complex.
- To provide more stable lies in the bunkers either firm up with a Wacker plate or rake them with the smooth back of maintenance rake. Using the toothed side delays packing.

## Tees

- Apply liquid 30:0:0 at 35 litres per hectare now or ammonium sulphate at 50kg/hectare in 400 litres of water.
- Thereafter apply 30:0:0 at 35 litres each month to teeing surfaces to maintain a strong vigour. Addition of growth regulatory (Primo Maxx) is worthy once regular growth kicks in during May to reduce top growth. Apply each month with the fertiliser at 0.8 litres per hectare until October.
- Application of 9:7:7 should be made to the par threes every 6-8 weeks in addition to the above. Apply at 20g/m<sup>2</sup> and include the surrounds to the 2<sup>nd</sup>/9<sup>th</sup> tee complex.

- Solid tine the tees every 8-10 weeks using the new Procore aerator and 13mm solid tines set to 75mm depth.
- If you wish to provide better vigour and grass cover to the rear 7<sup>th</sup> tee then the adjacent birch tree would need to be cut down as the roots etc are impacting the turf vigour.
- Fertilise the grass paths with the liquid as above for added definition and to counter wear.
- Sand the tees and paths soon and every six weeks at 20 tonnes/hectare afterwards once there is sufficient growth.

### Fairways

- Plan to overseed the fairways at the end of the summer with slender creeping red fescue and chewing fescue at a rate of 125kg/hectare out through the disc seeder. This should be an annual treatment for the next 4-5 years after which time the success or not of the seeding from an establishment point of view can be judged. Fescue establishment is aimed at reducing earthworm casting.
- The removal of grass clippings as a control of earthworm casting is backed by research and field research. The research has shown that in the order of 50% reduction can be expected after three years. You are half way along that initial process to the aprons. Clippings need to be removed year-round. It would require an additional member of staff. Ideally both fescue promotion and clipping removal would be introduced to make most inroads.
- Should the vigour of the fairways drop back in the coming weeks apply ammonium sulphate out through the sprayer at 50kg/hectare in 400 litres of water to boost growth gently. This treatment is due again soon to the drained parts of the 12<sup>th</sup> and 13<sup>th</sup> holes.
- While you aim to apply a controlled release granular fertiliser later in the spring when embarking on an overseeding programme at the end of the summer it is important that the vigour of the existing grass stand is not too strong to give seedlings a chance to emerge and establish. Therefore choose the lowest approved labelled rate when making the fertiliser application, although a liquid feeding programme based on cheap and cheerful urea would be preferred as it would give more control.
- Sand topdressing of the new holes at light rates of 20-25 tonnes/hectare is timely soon in early March once ground conditions allow to slow down the deterioration (natural occurrence due to earthworm casting) of the drainage rates of the slit drains. Sand dressings dilute the casts deposited.
- Maintain the fairway at a height at 22mm for the low season. Lower to 17mm in March or so and maintain at that for the main season.
- Address the dipped ground to one or two gully pots on the 12<sup>th</sup> fairway by lifting the turf now. Dress with good topsoil before replacing the turf.
- Tree work should continue with removal of the less valuable and less strategically important poplars and evergreen trees (e.g. Leyland cypress and Monterey cypress).

### Bowling Green

- Apply ICL Invigorator Plus (4:0:14 plus 8% iron) at 20-25g/m<sup>2</sup> now and a once more before late March to bring on density, the uniformity of cover and to help crowd out moss.
- Maintain the current height of cut at 7mm until early March. Reach 5mm by the end of March.
- Sand each week until the blowing season commences in April. It was agreed that sanding could continue during the summer at light rate which will progress firmness. Apply now at rates of 5-6 tonnes per hectare until the end of March once the sward can absorb it. Thereafter apply as often as possible (start of each week) during the main season at the same light rates.
- Maintaining a moisture content of around 20% (Theta Probe) is to be aimed to at to avoid moss spread and sward thinning between April and September when irrigation is needed.



Signed

*Conor Nolan*

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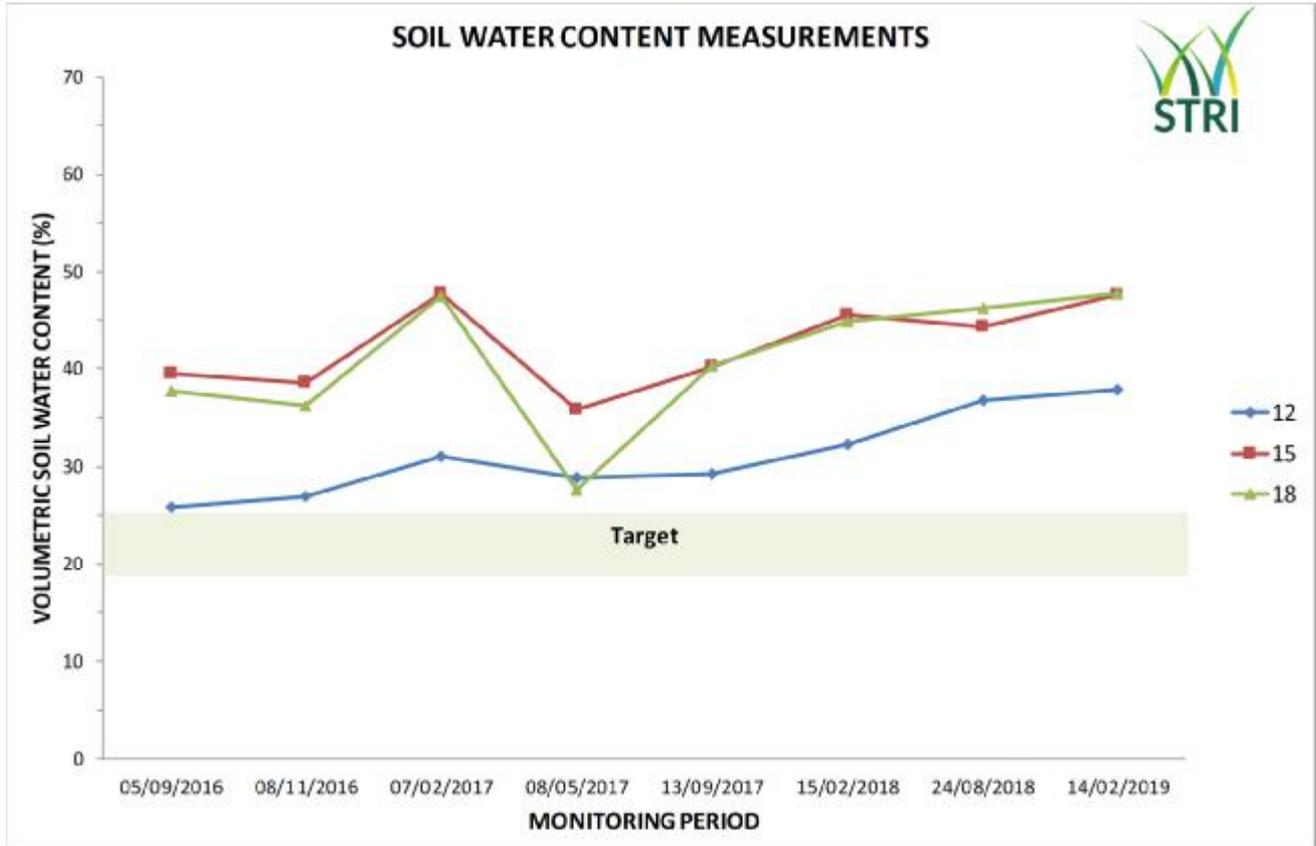
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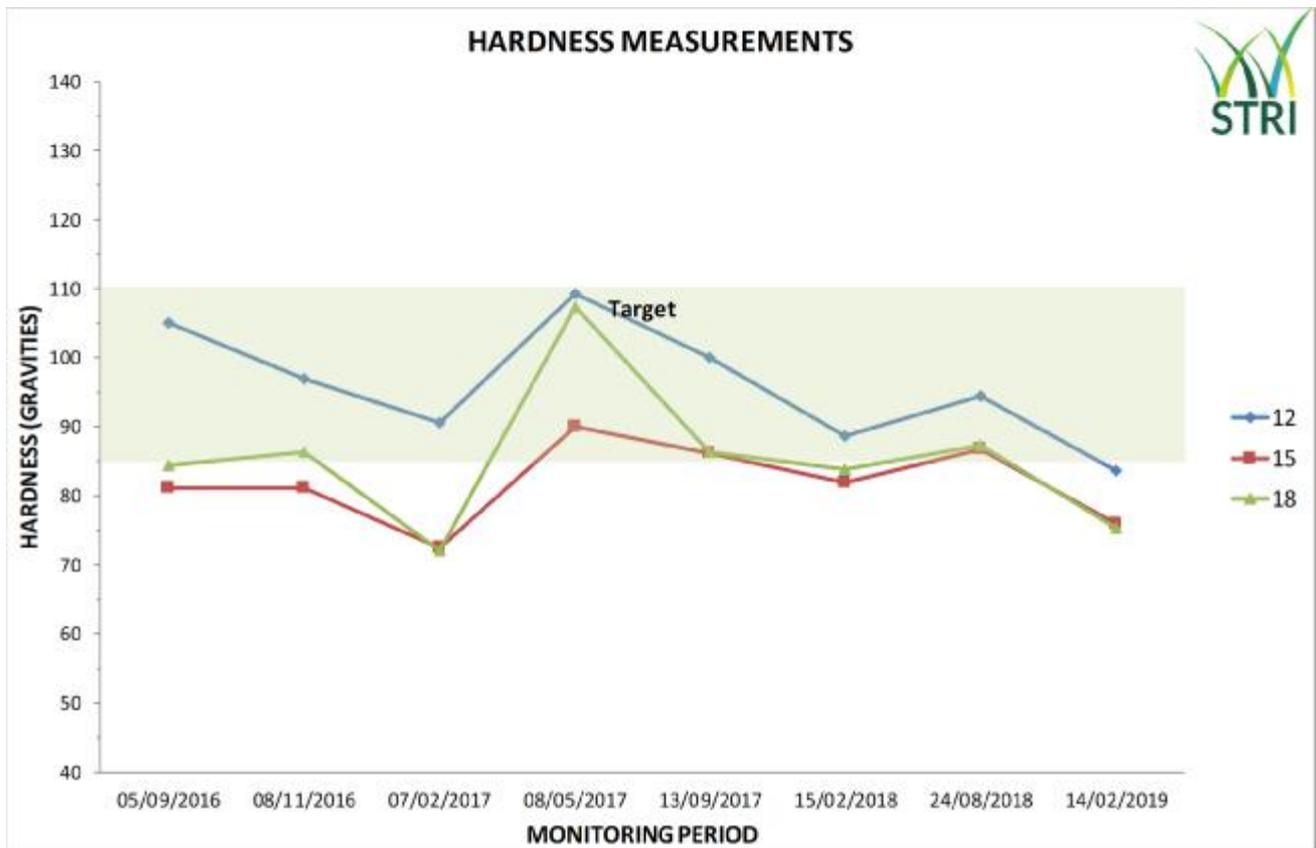
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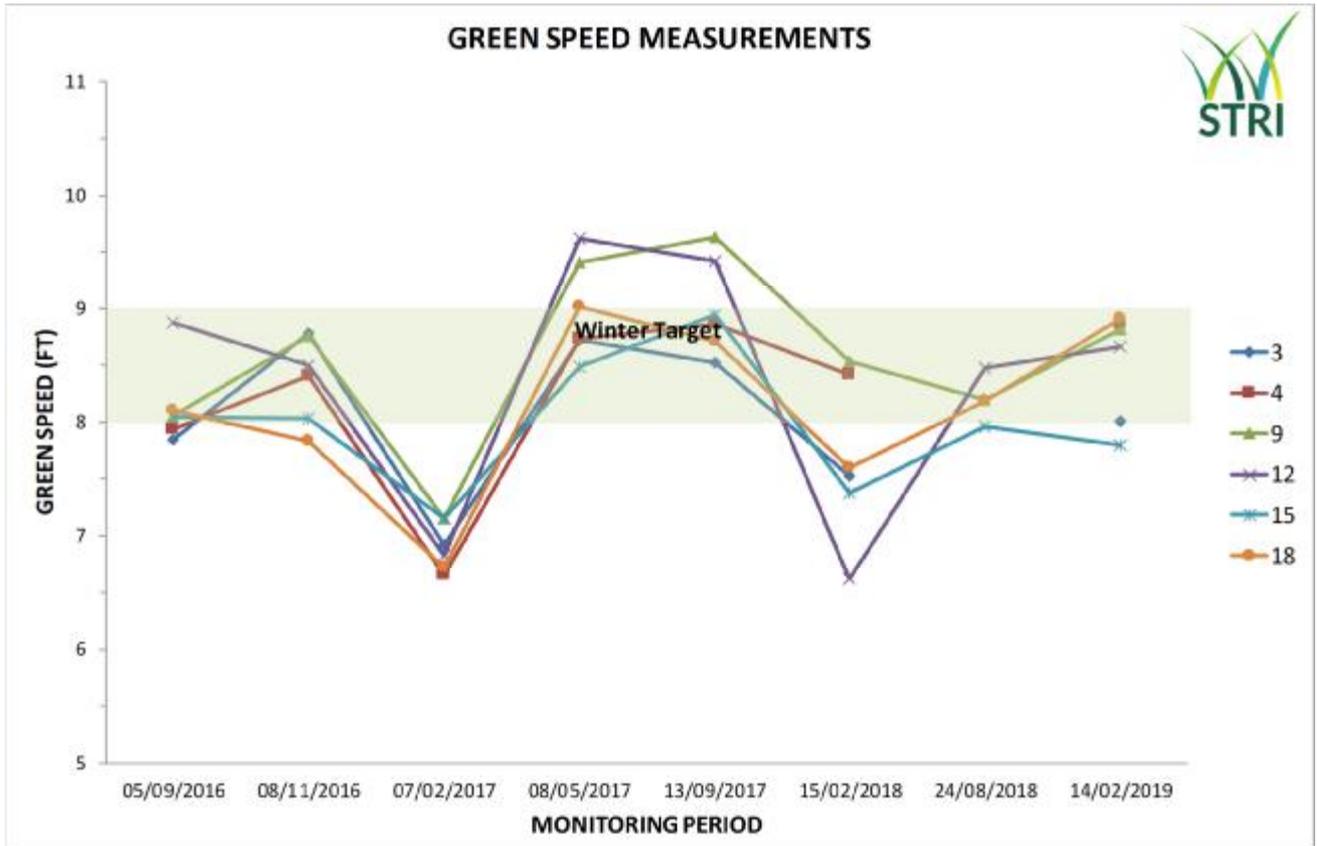
# Objective Data



Objective Data Graph 1:



Objective Data Graph 2:



Objective Data Graph 3: