



Witney Town Council

Advisory Report on West Witney, The Leys & Burwell QE2 Sports Pitches

Report date: 24th August 2023

Consultant: Michael Boyes

Date of visit:	24 th August 2022
Visit objective:	Review agronomic conditions and performance of the sports pitches at West Witney, The Leys & Burwell QE2 playing field.
Present:	Angus Whitburn – Operations Manager, Witney TC Michael Boyes – Consultant Turfgrass Agronomist, STRI Group Ltd

Introduction

Our previous visit was carried out on 23rd August 2022

The document details the following:

- [Executive summary](#)
- [Essential actions](#)
- [Record of site conditions](#)
- [Recommendations](#)

Executive summary

- Now under the direct stewardship of Witney Town Council, general conditions of the natural turf sports facilities have improved considerably across all inspected sites but have undoubtedly benefitted from less oppressive weather patterns this year.
- The bowling green at West Witney shows clear improvements in grass cover and The Leys is acceptable but shows substantial wear and tear and bears the negative impact of worm casting. Opportunistic weeds invade any sparse areas on both greens.
- The cricket square and wickets are well maintained and presented at West Witney. Significant damage was evident on the crease of the most recently used wicket and the Club have not availed themselves of the new wicket prepared on their behalf. The cricket pitch at The Leys has not been used for two years but is still receiving routine basic maintenance.
- The cricket outfield at West Witney is neat and tidy in stark difference to the football area, which displays very productive growth and substantial clippings left on the surface. Grass coverage is very strong on the football area, particularly in the goalmouths.
- The cricket outfield at The Leys is routinely maintained, with the section allocated for mini football pitches (i.e., 5, 7 & 9-a-side) in good health. The separate field at The Leys, now primarily used for public events, displays a significantly improved grass coverage compared to those under the drought conditions experienced over past summers, but remains too hard a surface to support football use.
- The Burwell QE2 playing field has clearly benefitted from recent inclement conditions, and more sympathetic weather patterns in general this year, and displays strong grass growth right across the site. Particularly encouraging is the improving grass sward in the goalmouths which stands the field in good stead ahead of preparations for the commencement of play in September.
- The council should continue to follow the 2019 STRI Sports Pitch Specification for both routine maintenance operations and structured programme of renovations but communicate any specific concerns on an ongoing basis with their appointed agronomist.

Essential actions

- Undertake a supplementary cutting operation (or tractor-mounted harrow/rake) on the football area of West Witney to disperse surface clipping debris. Aim to increase the frequency of mowing operations on the football sections of West Witney, Burwell and The Leys to minimise arisings.
- While weather and ground conditions are conducive, plan for a Shockwave aeration operation on the traditionally wet area of the football pitches section of West Witney to create fissures through the soil structure ahead of the winter to optimise drainage and promote root mass extension.
- Schedule end of the bowling season renovations on the greens at West Witney and The Leys for tailored aeration, scarification, top-dressing and overseeding to relieve compaction and optimise recovery for the 2024 season.
- Target additional solid pencil tine aeration (6 – 8mm Ø) on the noted, thinning and compacted areas of both bowling greens.
- As part of routine bowling green maintenance operations at The Leys, consider the use of a more sand-based (i.e., 80:20 sand/soil) top-dressing, acidifying fertiliser and a marginally higher, height of cut, to reduce the impact of worm casting activity.
- Liaise with the cricket club to optimise use of the facilities at West Witney and agree the preparation and use of specific wickets for each fixture to spread wear and tear and guarantee integrity and safety of the playing surfaces.
- Ascertain if there is a genuine aspiration to use the cricket pitch at The Leys to avoid unnecessary time and expense in routinely maintaining the facilities, with no play.
- Make provision for marking out of football pitches across the various sites in the coming weeks.
- Tailor the end of the football season renovations to include the typical aerate, top-dress and overseed programme but modify sand and seed delivery in line with prevailing ground conditions and grass health.

Record of site conditions – West Witney - Bowls



Photo 1: General condition of the bowling green at West Witney has improved considerably under the direct stewardship of Witney TC.



Photo 2: The soil profile has improved marginally, with some root extension encouragingly seen around 100mm deep.



Photo 3: The problematic corner of the bowling green identified in 2022 has improved but still displays high soil moisture (38.6% seen above).



Photo 4: In the same corner, a very encouraging surface firmness of 126 gravities was recorded on the morning of the visit.

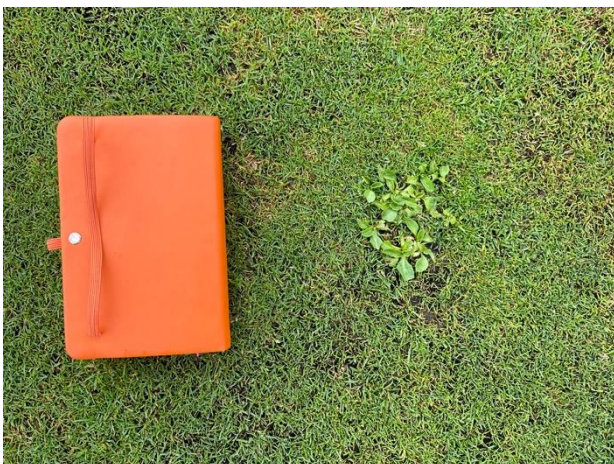


Photo 5: Opportunistic weeds continue to present a challenge and should be removed by hand as part of routine cutting operations.



Photo 6: The corner of the green, nearest to the entrance gate, shows concentrated wear and tear and requires additional aeration, sanding and seed.

Record of Site Conditions (continued) – West Witney - Cricket



Figure 7: The cricket pitch at West Witney is well maintained but remains under-used at present which is unfortunate.



Figure 8: The most recently used wicket appears to have delivered a perfectly acceptable playing surface.



Figure 9: New wicket had been prepared for the most recent fixture but was not utilised by the host Club.



Figure 10: For the forthcoming weekend fixture a wicket is being prepared and is appropriately protected by the mobile cover.



Figure 11: Unusually high levels of wear and tear were evident in the crease of the used wicket, particularly when the fresh wicket was available but unused.



Figure 12: The cricket outfield is in very good condition and displays largely sound surface levels, with a weekly Trimax cut at approximately 25mm.

Record of Site Conditions (continued) – West Witney - Football



Figure 13: There is a stark difference between the routinely maintained cricket outfield in the foreground and football pitches in the background.



Figure 14: Grass growth has been particularly productive on the football pitches area of the playing field at West Witney.



Figure 15: Grass cover is very dense and healthy, and excellently positioned for the commencement of football at the start of September.



Figure 16: Encouragingly, sward density is particularly strong in the goalmouths, which has presented a considerable challenges in previous years.



Figure 17: The traditionally wet section of the football field at West Witney is in reasonable health. Clippings require immediate dispersal.



Figure 18: The Imants Shockwave unit should be employed in the “wet” section at West Witney to optimise drainage and improve root extension.

Record of Site Conditions (continued) - The Leys - Bowls



Figure 19: The bowling green at The Leys is in reasonable condition but shows high levels of wear and tear as a busy facility.



Figure 20: Where grass cover is thinner, worm casting activity is more prevalent, which represents a considerable challenge at the site.



Figure 21: The soil profile displays a relatively shallow rooting network and persistent thatch accumulation in the top 20mm.



Figure 22: Water content remains higher than desirable at 35.6% (inset), but surface firmness is still an encouraging 115 gravities.



Figure 23: When voids appear in the grass cover, weeds, moss and undesirable coarse grasses are quick to invade.



Figure 24: The hedgerow and adjacent trees continue to have a negative influence on air circulation and light penetration.

Record of Site Conditions (continued) – The Leys – Cricket & Football



Figure 25: The cricket pitch at The Leys has not been used for two seasons but still receives basic maintenance.



Figure 26: Grass composition on the square at The Leys retains good proportions of the most desirable finer grass species.



Figure 27: The cricket outfield at The Leys receives routine cutting maintenance and displays reasonably healthy grass coverage.



Figure 28: The healthy section of cricket outfield is allocated for football use for 1 x 9-a-side, 2 x 7-a-side and 3 x 5-a-side pitches.



Figure 29: The section of The Leys originally used for football displays a remarkable recovery under more favourable weather patterns this year.



Figure 30: In the area of the historic goalmouths, surface firmness still reads a very 227 gravities, remaining unsafe for football use.

Record of Site Conditions (continued) – Burwell QE2 field.



Figure 31: Grass growth has improved considerably at Burwell with more sympathetic weather patterns this year.



Figure 32: Grass coverage has improved noticeably in goal mouths, particularly when compared to past, drought stressed conditions.



Figure 33: Grass sward composition is positive, and coverage is dense and healthy. More frequent cutting operations will reduce clipping accumulation.



Figure 34: The soil profile is reasonably good at Burwell and displays encouraging sand dominated top-dressing integration.

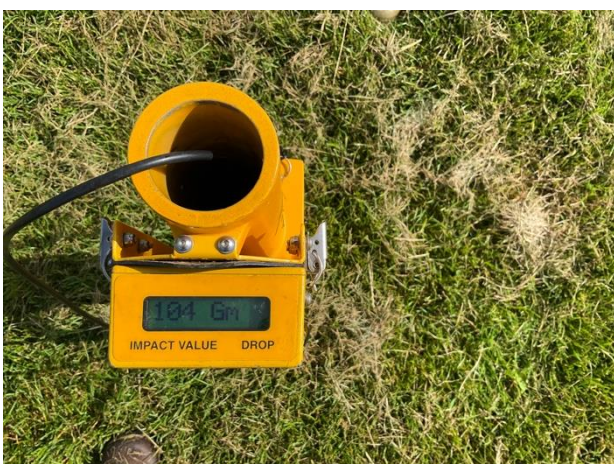


Figure 35: A very encouraging surface firmness of 104 gravities was recorded at random, ideally situated for the commencement of use in September.



Figure 36: Some 195 tonnes of sand-based top dressing (i.e., 65 tonnes per 11-a-side pitch) was stored and distributed at Burwell. The damage from stockpiling requires localised repair.

Recommendations

Bowling Green Maintenance

- Routine maintenance operations have improved substantially under the direct control of Witney Town Council and are borne out by the results evident on the bowling greens, particularly at West Witney. Conditions have undoubtedly been assisted by more favourable weather patterns this year, when compared to the oppressive drought conditions of past summers as highlighted in the 2022 report.
- At West Witney, the grass coverage has improved significantly and appears largely dense and healthy, with encouraging proportions of the more favourable finer grass species. On the heavily used green at The Leys, more significant wear and tear is evident and a thinning of grass cover at rink ends is compounded by the common occurrence of high levels of worm casting.
- Both greens display a higher than desirable soil moisture content at present at 30% plus (optimum target 12-22%) but encouragingly surface firmness is relatively positive with 126 gravities (West Witney) and 115 gravities (The Leys) against a suggested range of 120g+. A conscious drying down of the greens for the final weeks of the season will marginally improve performance.
- The problematic corner of the West Witney green, identified at the time of the last visit, has improved considerably with a more-balanced moisture content and stronger grass cover, with the playing surface noticeably firmer underfoot. With a denser grass sward, moss populations are being forced out and there are less voids for weeds to take advantage of.
- In the complete absence of any chemical controls for worms, we must resort to cultural practices to deter worm casting activity which include the use of more sand-dominated top dressing and acidifying fertilisers (i.e., ammonium sulphate) to irritate the insect and employing a very marginally higher, height of cut to protect surface integrity.
- On localised areas on both greens, where a thinning of grass cover persists over compacted soils, a supplementary programme of ongoing aeration would be advantageous to improve drainage potential and the development of the rooting network to develop and then sustain stronger grass cover at the surface.
- Routine cutting operations (Monday, Wednesday, Friday) continue to deliver a reasonable playing surface, and the conservative 6mm height of cut is fully supported.
- The physical removal of sporadic invasive weeds by hand should form part of the mowing operations.

End of Season Bowling Green Renovations

- Pre 2023 season aeration programme at West Witney were said to include 2 chisel tine and 4 separate needle tine operations delivered via the SISIS Dart pedestrian aerator. The Dart is a versatile piece of equipment which facilitates hollow core, solid tine and the aforementioned needle and chisel tine aeration. The Dennis 510 mower has a cassette system which delivers the required scarification operations, but also accommodates a Sarel-roller cassette and a cassette available for verticutting which has recently been procured.
- The Leys renovations comprised multiple scarification operations, hollow core and collect, top-dressing and overseeding. Routine aeration is quite difficult on The Leys bowling green due to the high levels of play and have been confined to a single needle tine.
- End of the 2023 season renovations will be tailored to suit the prevailing green conditions at the respective site and once again be formulated around the STRI Sports pitch maintenance Specification (2019) but typically follow the routine solid pencil tine aeration to relieve soil compaction, multiple scarification operations, top-dressing and overseeding.
- As highlighted previously, bespoke additional operations will be necessary to target the more compacted areas of both greens which display a thinning of grass cover to help water percolation through the profile, improve the root network development and promote a stronger grass cover on the surface with targeted dressing and overseeding.

Cricket - Maintenance

- The cricket square at West Witney is well-maintained and neatly presented, ready for play with a new wicket prepared fully and another in preparation under the covers ahead of the fixture at the weekend. As previously highlighted, it is the opinion of the author that the cricket facilities at West Witney are wholly underused.
- The most recently used wicket at West Witney displays an extraordinarily high level of wear on the crease which seems to exceed routine footfall, taking of the mark and bat impressions from limited fixtures. The Club elected not to use the new wicket which had been freshly prepared on their behalf.
- Routine maintenance and pre-fixture preparations are appropriately timed and overall conditions of the square at West Witney are very good for the time of year. Weather patterns have aided the practices and removed over reliance on limited irrigation provision.
- It is understood that the Club may have adopted excessive use of their “heavy” roller from February, so closer communication with Witney TC would be beneficial to achieve the desired results with regards to cricket pitch health and longevity.
- The cricket pitch at The Leys continues to receive routine maintenance despite having reportedly not being used for approximately two years. Grass coverage is very strong on the cricket square and continues to display good proportions of the desirable, finer grass species.
- No wickets have been prepared on the square at The Leys for a couple of years and rolling operations have been omitted entirely so a conscious decision needs to be made whether the facilities continue to be offered and time and money committed to their upkeep.
- The outfield at West Witney displays reasonable surface levels and a strong grass cover routinely maintained with the Trimax mowing deck at approximately 25mm height of cut. The outfield at The Leys is also typically well-maintained, with the section furthest away from the maintenance buildings allocated for use as the site for mini football (i.e., 1 x 9-a-side, 2 x 7-a-side and 3 x 5-a-side).

Cricket - Renovations

- The 2022 end-of-season renovations on the cricket square at West Witney were reportedly carried out in November and comprised the typical solid tine aeration, multiple scarification operations, top-dressing with selected loam and overseeding programme. The Council employed the light (90kg) roller initially and followed with the 300kg roller in April/May 2023, for the start of play. A similar programme of 2023 renovations are planned for the end of the cricket season in early September.
- A more conservative approach to close season renovations was naturally adopted at the Leys due to the aforementioned lack of use. Decisions regarding the intended use of the cricket facilities at The Leys will dictate the necessity for ongoing time sensitive and costly renovations.
- As highlighted in numerous previous reports, the drop-off in surface levels beyond the stumps on the cricket square at West Witney still requires addressing at the earliest opportunity as part of end of season renovations. This remains a gradual process, to take place over many seasons, to achieve the desired results with minimal adjustments annually.
- Ongoing deep solid tine aeration (i.e., Verti-drain), slitting or Shockwave operations should continue across outfield areas at opportune times when weather and ground conditions are conducive to maintain drainage capabilities, promote root extension and support strong grass cover.

Football - Maintenance

- The football pitch area at West Witney exhibits extremely productive grass growth at present which has resulted in high levels of grass clippings apparent on the surface on the day of the visit. Current height of cut is believed to be approximately 45mm (setting 4 on the Trimax) and a supplementary mowing operation is advised imminently, or use of the grass harrow/rake, to disperse the excess clippings.
- General grass cover at West Witney, despite being smothered in places by the clippings, is dense and healthy and particularly encouraging in the goal mouth areas which have traditionally struggled in previous years.
- The Burwell QE2 Playing Fields have recovered extremely well from the drought pressures of past summers and currently display good strong and healthy grass cover, albeit not as productive as is seen at West Witney. Some signs of red-thread disease are seen across the site which is not of any great concern as it merely indicates a slight nutrient deficiency at present.
- The Burwell Fields exhibited an encouraging 104 gravities surface firmness which is entirely conducive to the commencement of play in September.
- The “events” area at The Leys displays an encouraging improvement in the health and density of the grass sward, thought largely to be a result of inclement weather patterns this year. However, an inspection of the area around the site of one original goalmouth still yielded a surface firmness of 227 gravities, more than double the suggested target range, so the area remains wholly unsuitable for hosting football events.
- Marking out and the installation of goalposts is due over the next few days ahead of the commencement of play in the first week of September on both sites.

Football - Renovations

- Renovation of the football area at West Witney in April 2023 comprised linear aeration, use of the 1.8 metre Shockwave unit (Imants) and top-dressing at a rate of approximately 65 tonnes per 11-a-side pitch prior to drill seeding with a minimum of two passes. Relatively thinner areas of grass cover received 3 targeted passes with the overseeding unit.
- A similar process was adopted at Burwell QE2 Playing Fields with 195 tonnes of sand delivered and applied across the entire site. Some surface damage was apparent on the location of the stockpiling of sand, and repair works will be required to restore grass cover in the damaged area where underlying grass was effectively smothered and killed.
- The cricket outfield area nominated for football at The Leys was subjected to Roto-knife aeration, seed drilling over two-passes and received a granular Autumn/Winter fertiliser in November 2022. April 2022 delivered Shockwave aeration, 90 tonnes of dressing and two passes with the drill seeder.
- Additional adoption of a Shockwave deep decompaction operation was agreed on the traditional “wet” area of the football section at West Witney to enhance drainage and continue to create fissures at depth for root system development.
- Encouragingly in comparison to last year, the goalmouths at Burwell QE2 Playing Fields display very strong grass growth, ideally placed for pre-season final preparations over the next few days.
- Thankfully the issues regarding the obvious lack of irrigation, which proved a highly negative influence for all sites under last summer’s drought conditions, has not harmed the surfaces this year. However, it is important that we do not rest on our laurels when undertaking routine aeration operations to continue to develop a network of fissures through the soil profile to develop the root network and better resist returning drought conditions.

Signed

A handwritten signature in black ink, appearing to read "M. Boyes".

Michael Boyes BSc (Hons), MA, MBPR, FQA
Senior Consultant Agronomist – Sustainability & Environmental Management
t. +44 (0)7969 694496
e. michael.boyes@strigroup.com
www.strigroup.com

STRI Group
St Ives Estate, Bingley
West Yorkshire BD16 1AU
t +44 (0)1274 565131
e enquiries@strigroup.com

strigroup.com

