

# *B Jamieson Golf Advisors Ltd*

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## **St Austell Golf Club**

**31<sup>st</sup> March 2026**

## **Report by Bruce Jamieson**



### **General:**

The course, established in 1911, was re-designed in 1925 by James Braid and, although alterations have been made over the years, much of the original course remains. As a classic parkland course it exhibits many of the features which identified this type of land for golf, generally that soil types were normally poor and were not economic in terms of agriculture. Turf consists predominantly of *Agrostis* (Bents) and *Fescue*, however several areas present *Ryegrass*. Established trees now fill many of the low maintenance or out of play areas. Tree

shade on key areas such as greens and tees has had an impact on the condition of the turf and a woodland management programme should be considered to reduce tee shade initially.

The main concerns expressed were on the greens, aprons and walk off areas on the greens. The extremely old irrigation system now needs to be updated and plans have been drawn up to address this issue.

Due to the wet winter many greens have lost grass cover around perimeters and many of the damaged areas have been left to grow longer to assist recovery. Unfortunately, these will be slow to recover and gradually lowering the height of cut as the grass regrows will be required for at least 2-3months. The damage has been caused by a number of issues;- too much organic matter (thatch) resulting in soft surfaces, constant turning of machinery, high traffic areas, low cutting heights, disease damage and poor drainage all of which will take time to resolve.

Machinery range is limited, and a replacement programme is urgently required. Additional machinery will improve work efficiency which will be outlined later in the report.

Low staffing levels presents a significant issue.

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### **Greens:**





Greens were being cut with a bench set cutting height of 6mm however, due to the soft surfaces the effective height of cut is much lower, causing stress to the grass and scalping of the greens perimeter resulting in grass loss. This will take time to recover, and work is required to reduce the potential for this to re-occur.



It was evident that several areas tend to lie wet following rain or irrigation. Field toad rush (*Juncus bufonius*) was evident on several areas, and although this sedge can be removed with careful management, the underlying issue will take time to resolve.

The greens were a mixture of Annual Meadow grass and *Agrostis* although percentages varied considerably between greens. Over the years limited top dressing has been implemented with various materials which did not match the original construction material, resulting in a layering problem. Infrequent applications of top-dressing has resulted in thatch building up between these layers resulting in a total mass of varying top dressings and layers of thatch, achieving a depth of between 25-40 mm. Distinct root breaks now occur at various depths and this top 35-40mm has become the primary growing medium. Organic material testing should be done to establish current levels so that the maintenance programme can be adjusted to reduce this build up.



**Iron oxide causing brown discolouration.**

Iron oxides depositing around aeration holes has resulted in the pore spaces being filled up quickly, thus reducing and then cancelling the beneficial aspects of aeration. This closing of the pore space will occur within 3-5 weeks following aeration work being implemented.



### **Root breaks in the greens**

The different layers are essentially the cause of the resulting problems as most of the root mass is now growing within these layers, rather than in the underlying soil. This type of problem is typical of many older golf courses in Britain as current knowledge now recognises the problems caused by maintenance practices over the last 30-40 years. The long-term aim should be to reduce the layering problem by intensive aeration, hollow tining and top dressing and to introduce new *Agrostis* (Bent grass) to displace the *Poa Annua*. This process takes several years to achieve and, even then, a percentage of *Poa Annua* will survive, however this botanical change is worth pursuing as *Agrostis* greens produce better putting surfaces for greater periods of the year. It is also important to note that *Poa Annua* has, by its very nature, an ability to adapt and survive with a shallow rooting system. At present root development on the greens is only achieving 30-40 mm but in the aeration holes roots are deeper.

Greens construction during early 1900's normally consisted of a clay layer installed under the greens to retain moisture during the summer months. With the installation of irrigation systems these greens can quickly become too wet during the summer causing thatch to accumulate more rapidly and lead to soft and wet greens during the winter. Several greens tend to present drainage issues, however much of this is probably being caused by the thatch build-up. The aeration programme discussed should help reduce this issue over time. Installing drainage into the remaining three greens is vital.

The main concerns on the greens are as follows.

- ◆ Sward contains a high percentage of Poa Annua (Annual Meadow grass) which has several problems associated with it.
  - (a) Soft surfaces due to the build-up of organic material (thatch),
  - (b) It is susceptible to severe disease attack,
  - (c) It is considered to be a shallow rooting grass and therefore out-competes finer grasses where surface compaction is present,
  - (d) It continually produces seed heads throughout the growing season which detract from the putting surface,
  - (e) It does not produce the fastest putting surfaces consistently throughout the year.
- Layering, caused by infrequent and/or varying top dressings has essentially caused some of the resulting problems as most of the root mass is now growing in these layers, rather than in the underlying soil.

The susceptibility to damage.

### **Long-term aims**

- ◆ To produce excellent putting surfaces for 8-9 months of the year.
- ◆ To reduce the Poa Annua content in the sward to approximately 50% and introduce Agrostis to displace it. However, until the thatch layer (organic material) has been reduced to approximately 6% there is little benefit in over-seeding the greens at this stage. Once thatch layers have been reduced an over-seeding programme will help accelerate the botanical change.
- ◆ To implement a balanced fertiliser programme throughout the year to sustain healthy growth, geared to the requirements of the Agrostis rather than the Poa Annua.
- ◆ To irrigate to sustain healthy growth but avoid over watering.
- ◆ To reduce the thatch layer by frequent cultural practices throughout the year.

- ◆ Surface compaction should be controlled via aeration to various depths of 100-250 mm during the year to help encourage deeper rooting grasses.
- ◆ Install additional drainage where necessary during autumn and winter periods over the next 2-3 years.

It is important that light top dressings are applied frequently (every 4-6 weeks) during the growing season to ensure that the top-dressing material becomes incorporated within the thatch build up. This will also prevent layering within the soil profile, thus making future management easier.



### Thatch and root breaks

Organic material (thatch) is an intermingled layer of dead, dying and living plant roots and shoots that develops between the green vegetation and the soil surface. There are several

problems associated with excessive thatch; - increased disease, increased insect problems, localised dry spots, poor nutrient retention, foot printing, decreased heat, cold and drought hardiness. The causes of excessive thatch are vigorous growing turf cultivars, over watering, over fertilisation, acidic soils and compaction.

It is likely that small areas of thatch collapse may be evident on several greens during the next 12 months as this problem occurs when soil fungi rapidly break down the organic material, releasing nutrients into the soil. As the thatch degrades these areas become slightly depressed and can coalesce over time. There is no real cure for this problem other than to aggressively manage the thatch layer via aeration, thus removing the organic material that is essential for soil fungi to survive. Fungicides can be used to minimise the impact of this problem.

### **Action required;**

1. For the next 4 weeks the height of cut should be raised to 7mm with cutting being implemented 3-4 times a week and in straight lines only, where possible. Groomer units adjusted to ensure that they are positioned at least 3mm above the soil surface.

The clean-up ring and uncut areas of the greens should be cut twice a week with a pedestrian mower set at 8mm for at least 4 weeks. Once this cutting height has been established and grass cover has recovered, the cutting height of the clean-up cut, grown in areas and greens should be lowered to 6mm for 2-3 weeks. As grass cover improves the cutting height should be lowered by 1mm every two weeks, until cutting height of 4mm is achieved and then maintained the summer.

The groomers should not be used for the next 3 months.

2. Fertiliser containing 12:3:9 + 2%MgO + 2%Fe should be applied at 25g/m<sup>2</sup> (the schedule recommends 35gm<sup>2</sup>). The aim for this year's fertiliser programme is between 80-100kg of nitrogen and 40-50kg of potassium per hectare. Repeat applications of this product should be at 5-7 week intervals throughout the summer.
3. Hollow tining with 5mm internal diameter tines, to a depth of 20-25mm, should be implemented once a month and the resulting cores removed. The Dyna-Core units must be fully refurbished and the greens staff trained by GreenTek on the correct setting and use of these attachments.
4. Verti-draining with 8-10mm tines to a depth of 200-250mm and set with 5 degrees of heave, should be implemented once, during April and May. The pedestrian mower should be used to roll the greens following this operation to help smooth out the surface.
5. Seavolution should be applied at a rate of 20 litres per hectare, every 4 weeks during the cutting season.
6. Zipline wetting agent should be applied at a rate of 20litres/hectare monthly during the cutting season.

7. Top dressing should be applied at a rate of 0.5kg/m<sup>2</sup> monthly throughout the cutting season and work into the surface with a sweep and fill brush.
  8. The irrigation system should be fully tested to ensure it functions properly with good coverage. Ideally, this should be done by an irrigation technician/company.
  9. Weed control should not be implemented for the next 6 months due to the poor condition of the greens..
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### Aprons



These areas were botanically similar to the greens. The height of cut at approximately 12mm and cutting implemented once or twice a week due to low staffing levels.



**Left side of 4<sup>th</sup> apron badly worn.**

Stressed and worn areas resulting from golfing traffic was evident and these areas will require additional work and protection until they recover.

**Action required;**

1. The height of cut should be maintained at 12mm.
  2. Worn, stressed or damaged areas should be solid tined, over seeded and then roped off to allow for recovery.
  3. A fertiliser containing 12:3:9 + 2%MgO + 2%Fe should be applied at a rate of 25g/m<sup>2</sup>.
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## Tees:



Sward density was reasonable on most tees, as they have not been used throughout the winter. Ideally several tees should be re-levelled however due to low staffing levels this work will have to be implemented once the issues with the greens have been resolved.

Surfaces were being maintained at 12 mm. Several tees presented weeds which should be addressed later in the year.

### **Action discussed and agreed;**

1. Cutting heights should be maintained at 12mm for the season.
  2. Selected trees and bushes around tees should be removed to improve both visual aspect of the course and air movement over these areas.
  3. Weed control with a selective weed killer should be implemented before the end of May
  4. Divotting should be implemented on a regular basis.
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## Fairways:



Fairways were being maintained at a height of approximately 15mm.

Several weeds were present, mainly Daisy (*Bellis Perennis*), Clover (*Trifolia Repens*) and Dandelions (*Taraxacum officinale*), all of which can be controlled with a selective weed killer.

### **Action discussed:**

1. Cutting at 15mm should be maintained throughout the summer.
  2. Depending on the weather weed control should be implemented during May.
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## **Bunkers:**

Edging, weeding and sand replacement is required, however with low staffing levels it will not be possible to complete all bunkers.



As considerable work required on the greens, work on the bunkers will have to be postponed until the winter. The bunker on the right of the 5<sup>th</sup> green should be a priority for work in the short term.

### **Action discussed and agreed;**

1. The weeding and edging programme should be ongoing.
  2. The bunker on the right of the 5<sup>th</sup> green should have the soil face reprofiled and turfed.
  3. Sand depth amendment in lined bunkers should be ongoing.
  4. Worn and damaged areas around bunker perimeters should have the turf removed, the soil re-profiled to prevent scalping and new turf installed.
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### **Semi-rough and rough:**

These areas were in good condition although weed control will be required during the spring.

### **Action discussed and agreed;**

Semi-rough areas should, where possible, be treated as per the fairways with the main difference being the height of cut which should be maintained at between 25-35 mm for the first 4m and 75mm for all other areas.

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### **Driving range:**



Grass cover has been lost on large areas of the outfield therefore re-seeding is required as soon as possible to fill in the bare areas and thicken the sward on all areas.

### **Action required:**

1. The driving range should be overseeded using a Verdo seeder and the seed should be inserted 10-12mm into the soil.
2. The following seed mixture should be used at a rate of 40g/m<sup>2</sup>, ideally seeded in two directions at rate of 20g/m<sup>2</sup>.

- 40% Barpropel            RPR Perennial Ryegrass
- 30% Barzico             Perennial Ryegrass
- 15% Barkamp            Perennial Ryegrass
- 15% Baradona          Perennial Ryegrass.

3. Polyon fertiliser containing 15:5:15 of nitrogen, phosphate and potassium should be applied at a rate of 30g/m<sup>2</sup>.

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### **Machinery:**

A detailed machinery inventory should include the following information: type of machine, date of purchase, hours used, current condition and planned date for replacement.

There is an obvious requirement for an additional green's mower and rough mower.

A full list of machinery requirements will be produced later in the year.

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### **Irrigation System.**

The system needs to be replaced as soon as club finances permit.

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### **Conclusion:**

Low staffing levels have had a detrimental effect on the condition of the course. Thatch build-up and infrequent top-dressing on the greens should be addressed aggressively during this year. A "Frequency of Operation Plan" should be produced to reflect work done on the course.

Improvements in the short, medium, and long-term are achievable but additional staff and resources are required. At present there is a need to prioritise the efforts of the existing staff and therefore this report focuses at improving the condition of the greens initially.

The main concerns are.

Poor staffing levels.

Winter damage areas remain.

Poor rooting and thatch on the greens.

Compaction on all high traffic areas on the course.

There is a considerable amount of work for the green staff to implement over the next three months, and I look forward to returning to St Austell Golf Club in June.