

# Sustainable Golf Course Management Project



SCOTTISH GOLF UNION



SCOTTISH LADIES' GOLFING ASSOCIATION



## Portpatrick Golf Club

### Providing acceptable green speeds in a sustainable manner

Situated on the coast in southwest Scotland, Portpatrick Golf Club has two courses, the 18-hole Dunskey and 9-hole Dinvin courses. The courses attract many visiting golfers and the club is renowned for the warmth of its welcome. A total of four greenstaff manage both courses. The Dunskey course is 5913 yards in length with a par of 70. There are glorious views from many parts of the course, none better than that from the 13th tee.



To address a severe problem of thatch prevalent on the annual meadow grass dominated greens in the 1990's aggressive management practices were employed, including deep scarification, weekly verti-cutting and increased levels of aeration and top dressing. In time the thatch was significantly reduced with an encouraging increase in the finer bent grasses (40% on many greens). At this stage in the recovery programme green speed (or lack of it) became something of an obsession within the club membership. In the pursuit of greater green speed, the Head Greenkeeper, much against his better judgement, was instructed, as a matter of club policy, to cut the greens at 3 mm for weekday play and 2 mm for competitions.

### The Challenge

- To satisfy the aspirations of the members without incurring the inevitable decline that would have taken place had the 'scalping' policy been allowed to continue.
- To demonstrate that acceptable green speed and sustainable management practices are mutually compatible.

### The Solutions

- Independent agronomy advice confirmed that the routine close cropping of the greens was unsound practice and would quickly undo the progress that had been made in thatch reduction and the improvement in species composition.
- Sensible and sustainable green keeping practices were re-introduced while recognising the modern golfer expectations in regard to green speed.
- To maintain thatch at an acceptable level and enhance the species composition the greens management regime was amended along the following lines:
  - cutting routinely at 4 mm with reduction to 3-3.5 mm for more important competitions
  - frequency of verti-cutting reduced from monthly to three times per year
  - regular aeration with a combination of verti-draining in October to March and solid tining and micro coring through the playing season
  - volume and frequency of top dressing increased to between 120-180 tonnes over the playing season (little and often)
  - brushing and rolling (using vibratory rollers) 2/3 times per week
  - overseeding in August and September with pure browntop bent cultivars

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## The Outcomes

### **Golfing Benefits**

- Green speed has been progressively increased to the general satisfaction of members and visitors alike. Although not 'Augusta' like, green speeds in the normal playing season of around 9 feet on the Stimpmeter have now been achieved for competition play and 8-8.5 feet for normal play which are appropriate to the limited size of the greens and their contouring.
- The greens are firm, consistent throughout the course and the increase in the finer bent grasses has provided smoother putting surfaces.
- 'Winter' greens are only required in times of frost (not frequent in this location).

### **Economic Benefits**

- With a growing reputation for quality playing conditions in pleasant surroundings, an increase of 21% in visitor income, which accounts for around half of the income of the club, was achieved in 2009 (a fifth of this increase was attributable to the staging of The Open Championship at Turnberry).
- The club continues to be attractive to new members.
- Because of the improvement in playability October to March the club has been able to increase their visitor income in the 'off season'.
- A marked reduction in disease, particularly fusarium, has resulted in substantial savings in the cost of fungicide.

### **Environmental Benefits**

- The proportion of bent grass on the greens has increased from virtually zero to 80% by virtue of sound cultural practices, broadly in line with the Disturbance Theory.
- The deeper rooting sward is more tolerant to distress in dry or drought conditions and water is only applied for grass survival and not to provide soft amenable targets.
- Fungicide applications have reduced from 6 weekly intervals to a single preventive application in early October.

### **Success Criteria**

- The courage to seek and implement independent agronomic advice.
- A return to sustainable greens management practices while recognising the call for increased green speed.
- A supportive committee who funded the purchase of major items of capital equipment to allow the objectives to be achieved.

### **What Next?**

- To consolidate the improvements already made in green firmness, smoothness and species composition.
- To extend the green management practices to the green approaches and surrounds, particularly in terms of frequency of aeration and top dressing application.