

# **GREAT, GOOD, AND BAD SURFACES: WHAT'S THE COST?**

Sustainable Turfgrass Management in Asia 2013

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## **INTRODUCTION**

Into the future turf management practices are going to be driven by several factors;

1. Budgets
2. Economy
3. Golfer expectation
4. Competition
5. Environment

Each of these factors individually or in combination will be the greatest drivers for how we manage our golf courses into the future. It will not just be an agronomic exercise, but will also be driven by necessity.

We are currently at a critical time for the golf industry. There is no doubt that golf courses at all levels have never been better prepared and presented and this has created greater expectation and reduced tolerance for imperfections. While we have reached this peak, many golf clubs are looking at or have been forced to reduce maintenance budgets. However, at the same time clubs have not been able to or prepared to “sell” to members that budget reductions mean a reduction in presentation.

There is no doubt there is strong competition in the golf industry. It is a tough business, as private clubs compete with each other for members as well as with the “pay as you play” courses. Many of the new public courses are of tournament standard and provide greater opportunities to the semi-casual golfer to play a championship course without the impediment of high membership fees. In response to the changing demand we see that many of our older and more established courses are modernising and upgrading. While making investments in course upgrades there is an expectation that the course will be better presented, surfaces will be firmer and faster and be at these standards 365 days of the year.

The question exists – have we pushed turf maintenance as far as we can? Have we hit the peak of the sustainability curve and started to slide down the other side? Are we spending a disproportionate amount of money for only a small increase in returns? The past summer in Australia has proven that no matter how good the maintenance regime is Mother Nature can take over with resulting turf losses through disease, heat stress and drought.

## **BUDGETS AND EXPECTATION**

### **What is happening with course conditioning?**

Golf started some 600 years ago as an ad hoc recreational activity where man tried to negotiate natural land forms. The turf consisted of native grasses grazed by animals or cut with rudimentary cutting equipment. There were no formal greens, the hole was selected from a rabbit hole with a stick in it and the hole was changed when the existing hole got too big.

Major improvements in turf quality came with the improvements in mowing equipment. With better cutting equipment the cutting heights became lower and the surfaces improved. As a single maintenance practice, frequent mowing has the greatest influence on surface quality. The more frequent cutting, the smoother, truer and faster

is the playing surfaces. This factor alone has greatly influenced the upward trend in maintenance inputs.

Golf course conditioning has improved due to several factors including;

- Technology: equipment, chemicals, irrigation equipment and grasses.
- Skills: Greenkeepers are better trained in all aspects of turf management, the environment and legislative requirements.
- New grasses: Better adapted to year round preparation, higher density, produce smoother surfaces, tolerate lower cutting and potentially have improved drought and salt tolerance.

These advancements have resulted in higher inputs including; more frequent cutting, greater fertility levels, improved and more intensive renovation techniques and greater water demands.

Irrigation has contributed significantly to course conditioning and in particular the condition and presentation of fairways. With greater water availability there has been increased growth and therefore increased cutting, the need for increased renovations and the introduction of growth retardants to control growth.

The end result has been an increasing expectation that the golf course will always be in very good condition and continue to improve.

### **Sustainability and future maintenance strategies**

In recent times there have been several factors that challenge the long-term sustainability and quality of golf courses;

- Budgets
- Water availability.
- Water quality.
- Cost of water.
- Environmental restrictions (in particular the restricted use of pesticides and fertilisers).

Managing a sustainable golf course means using the least amount of un-renewable resources to produce an acceptable round of golf. It involves greater resource use efficiency; changing attitudes of golfers, changing management practices and changing the public view of a golf course's worth to the environment. This is undoubtedly an incredible challenge.

The more refined the surface the more likely there is to be a disproportionate increase in expenditure to sustain the condition at that level. For example, to maintain fast green speeds all year, greens will need to be cut at lower heights with walk-behind mowers and rolled regularly. This will result in increased; turf stress, hand watering and use of pesticides.

In sustaining a particular golf course quality what happens if expenditure is reduced – assuming that the budget is reasonable? As resources are reduced it becomes increasingly more difficult to sustain a particular standard throughout the year.

### **Standards of Golf Courses**

A budget reflects all turf management requirements to maintain the golf course in accordance with the stated objectives and standards for that golf course. Unfortunately, very few golf clubs have a document that states the course philosophy and the required standards for that facility. The course philosophy document provides continuity over time despite changes in; committees, GM's, superintendents, members, fads and tournaments. When the course philosophy is developed it is then possible to work out the maintenance requirements. Once the resource requirements have been identified then the budget can be formulated.

## **Budgets under pressure**

The current economy is placing course management budgets under pressure. Future turf management practices and priorities will need to be changed to meet these demands for reducing costs.

The key time and manpower soaks that have increased expenditure include;

- Mowing in general.
- Walk behind mowing of greens.
- Bunker maintenance.
  - When does a hazard become a prepared playing surface?
- Contouring fairways – increasing roughs.
- Cutting and trimming out of play areas.
- Hand watering.
- Hand weeding.
- Pitch mark repair.

## **Future demands on the budget**

In the future, there will be increased demands on the budget to cover the increasing costs of compliance and resources including;

- Cost of water.
- Improved irrigation and control systems.
- Compliance to meet the requirements of;
  - OH&S.
  - Environmental Management.
  - Facilities
- Greater delegation of responsibilities.
- Qualified staff.

## **FUTURE MANAGEMENT PRACTICES**

Management practices in the future are going to continue to be determined by what standards are required, the available budget and the sustainability of the practices employed. However, there is going to be a stronger emphasis on; OH&S, environment, resource management, water and the effects of climate change which will influence the management practices.

Climate change in particular will influence management techniques and programs through; introduction of new grasses, maintaining grasses in a more transitional environment and new diseases and insect pests (or greater prevalence).

In my 30 years in the turf industry I would say that the basics have not changed. To provide high quality playing surfaces requires;

- Good construction.
- Good soil management.
- Good nutrition.
- Thatch management.
- Strong, healthy plants.
- Regular renovation/cultivation.
- Regular cutting at a height that suits the particular turfgrass species.
- Attention to detail.

From an agronomic/plant health and surface playability aspect, thatch control remains near the top of the list of essential practices. Many turf problems exist because of poor thatch management including; soft and wet surfaces, slow green speeds, poor turf health, poor heat and drought tolerance and greater susceptibility to diseases. Thatch management has on many courses been neglected in recent times, often because of the disturbance to the playing surface and inconvenience to golfers.

## **CONCLUSION**

Future turf management practices will be determined by several factors including;

1. Budgets
2. Economy
3. Golfer expectation
4. Competition
5. Environment
6. Climate change
7. Sustainability

It will not be one factor but a combination of factors that will determine the direction of turf management. As an overall appraisal of where the industry is at we have hit the top of the “presentation curve” and it is becoming increasingly more difficult and costly to stay at what may be considered to be an unrealistic level.

In the future my belief is that turf maintenance on golf courses will become less intense with a more strategic approach. For example, out of play areas, deep roughs etc. will receive no maintenance, allowing the time to be spent on the key play areas such as the greens. Golfers will have to accept reduced presentation and in particular reduced aesthetics.

While the intensity of the maintenance may be reduced the absolute basics of turf management will still have to be adhered to. Good soil management, adequate nutrition, thatch management and regular renovation/cultivation are still the basic requirements for maintaining strong, healthy plants and good playing surfaces.