

GTC/The R&A Workshops Sustainability and the Golf Course

25th June 2009



R&A

Governing Authorities



“Golf uses too much land for too few people and is socially and economically elite”



“The golf course is an over-manicured environment that uses too much water and chemicals”



“The golf course is imposed on the natural landscape and is a ‘green’ desert”



The R&A definition

“Optimising the playing quality of the golf course in harmony with the conservation of its natural environment under economically sound and socially responsible management.”

Playing quality

- Measurable performance characteristics
- Greens: firmness, trueness and speed
- Fairways: firmness, bounce and run
- Perception. Colour? Healthy!
- How good does it have to be?







Player perception

Golf Digest course rankings now ask their assessors to judge conditioning by “How firm, fast and rolling were the fairways and how firm, yet receptive, were the greens on the day you played the course?”

Turf performance

The TruFirm measures firmness



Turf performance

The Trueness Meter
measures trueness of
ball roll



Environmental stewardship

- Care for the natural environment
- Landscape and soil preservation
- Water and air quality
- Habitat management and biodiversity
- Impact of inputs



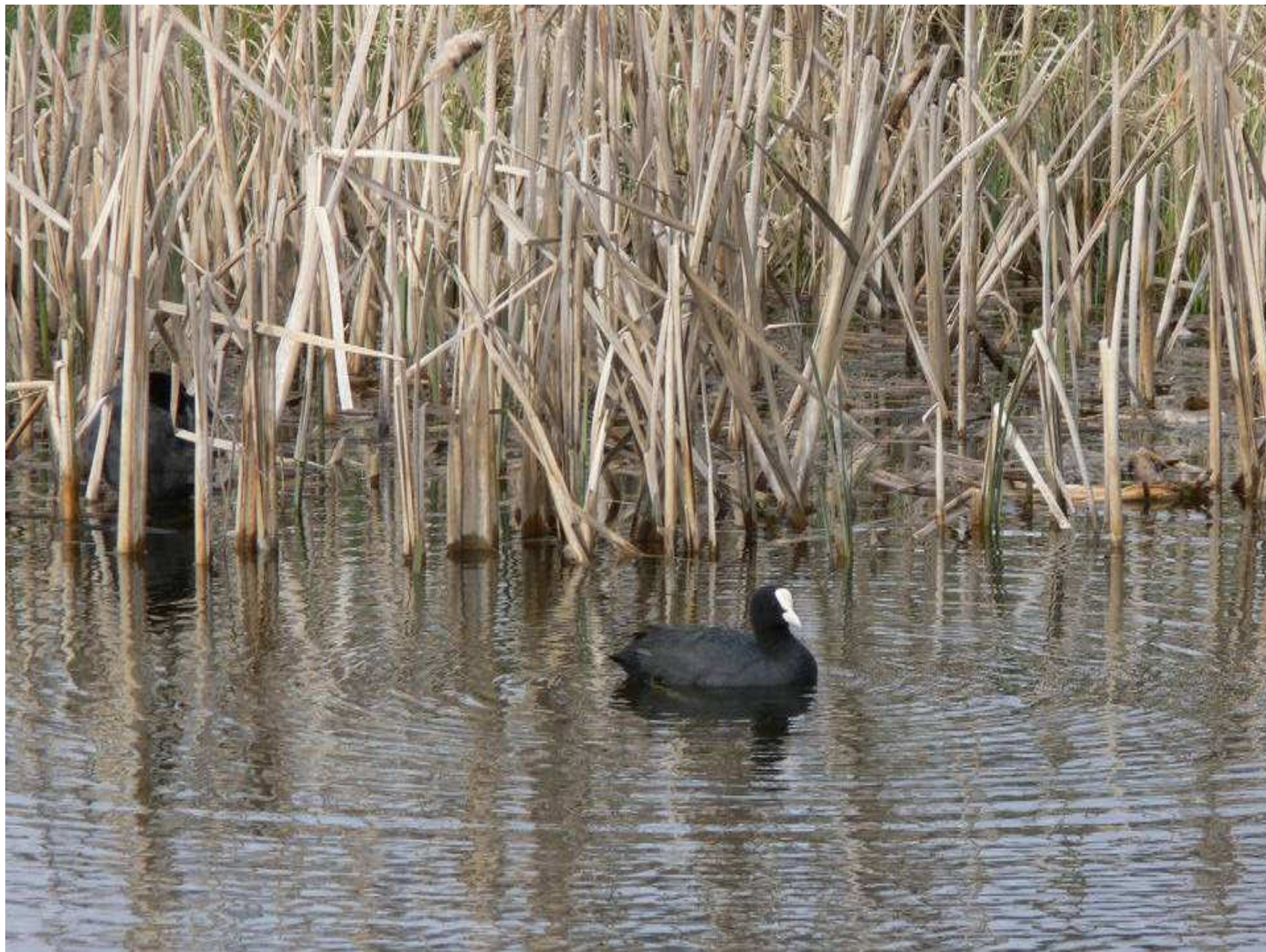




















Economic performance

- Cost of products used on the course
- Cost of machinery purchase and upkeep
- Cost of labour
- Income generation





Social responsibility

- What does the golf course contribute to society?
- A source of pollution and waste?
- A draw on precious resources?
- A “green desert”?

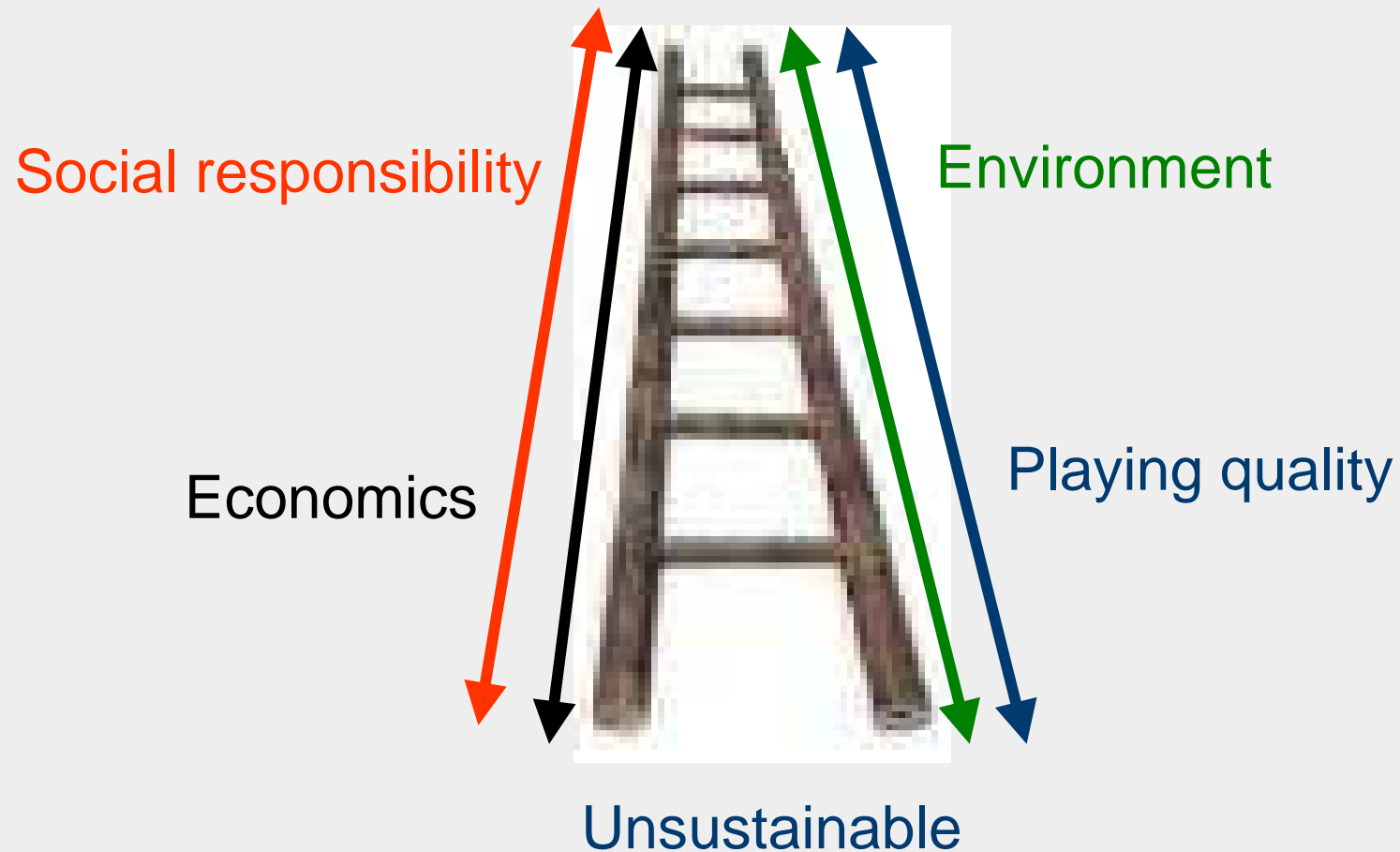




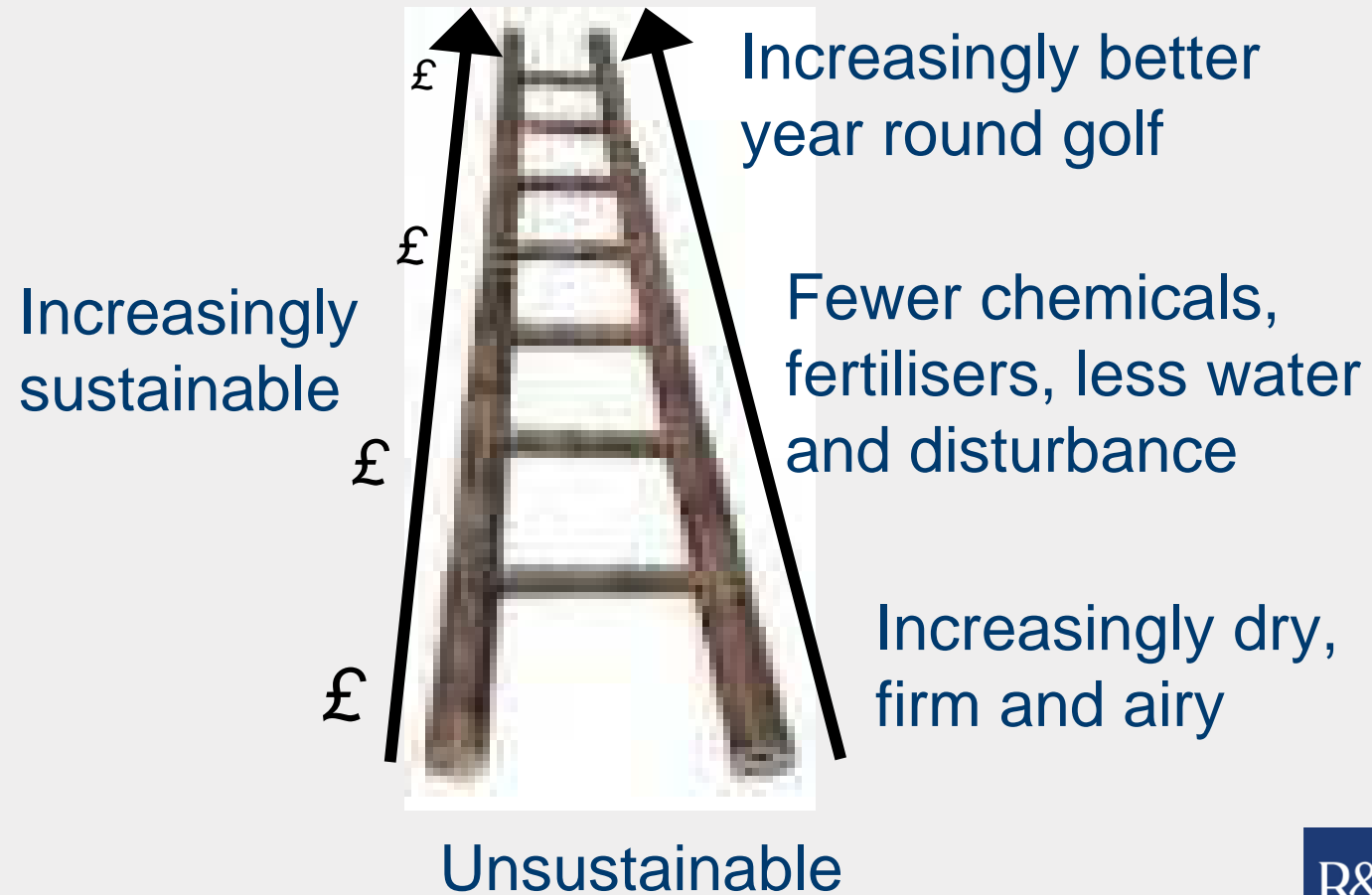




The sustainability ladder



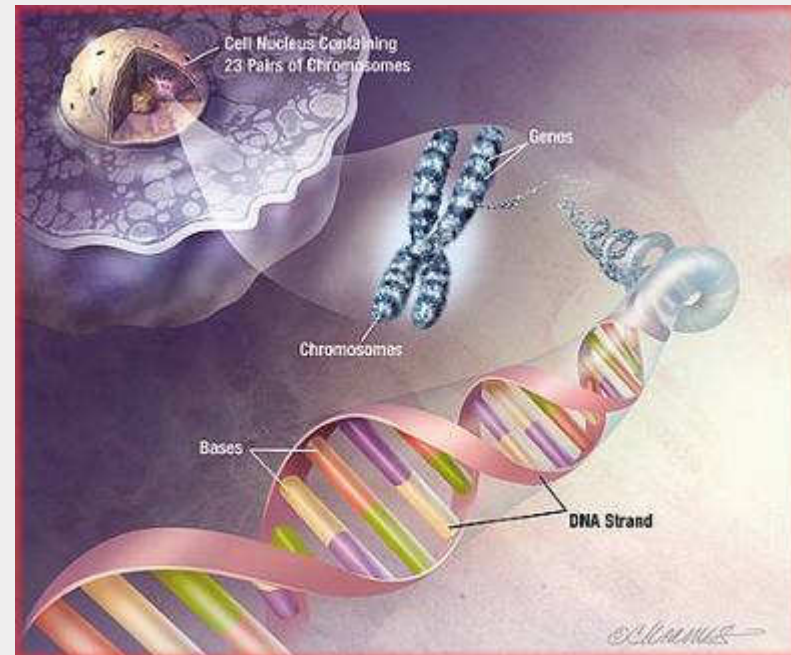
The ladder of sustainability



Sward composition as an indicator

DNA of grass

- Measures composition of swards
- Current techniques inaccurate (visual) or too time consuming (point quadrat)







The ladder of cool season grasses

Fewer inputs and less intensive maintenance

Avoid unnecessary excess



The ladder of warm season grasses









Sustainability

Sustainability is about
your ability to adapt.

Will a changing world
remove the bottom
rung(s) of the ladder?



Course management: Benchmarking - Windows Internet Explorer

http://hangnail.textmatters.com/benchmarking/add_data.html


Google

Course management: Benchmarking

PageTools

Test User, English Golf Union England | [Sign out](#)[return to best practice guidelines](#)

R&A Benchmarking

ENGLISH GOLF UNION
...at the heart of golf

Benchmarking home

Add data

Graphs & data

Printed report

FAQs

Add data

Base survey: EGU survey

The forms to this survey enable you to input information about your facility in relation to key issues for your country, often relating to regulatory requirements, as identified by English Golf Union.

Additional survey

The forms to this survey provide the opportunity to enhance the information to the EGU survey but none of this is obligatory. You choose how much, or how little, you want to record and for which subjects and areas of the golf course.

ENGLAND

Remove

You can also participate in

PLAYING QUALITY

Playing quality includes: Greens: playing quality

Add

TEST GROUP

Greens playing quality includes: Greens: playing quality

Add

JUST FOR JEZ

Greens playing quality includes: Greens: playing quality

Add

JEZ'S TEST GROUP

Add

Useful information

If you want to input historical data about your course, you must enter this earlier data first into the Annual forms. The system allows you to do this as far back as 2005. The Monthly forms are not date-bound in this way.

The system has built-in error trapping. If a number is entered incorrectly (e.g. 'six' instead of '6') then a warning pop-up box will appear and you should re-enter the data in the correct way.

Similarly, a warning will appear if a number is entered that is out of the expected range (e.g. a greens mowing height entered as 50 mm rather than 5 mm).

Do not use a comma to separate units of 1000, insert numbers only, i.e. 5000. For decimals use a full stop, i.e. 35.9. Some inputs allow for one decimal place, others two or more. If you input data with more than the allowed number of decimal places, a warning pop-up box will appear and you will need to re-enter the data.

Entering zero requires you to type '0', as the system doesn't treat a blank field as zero.

Annual data

EGU SURVEY

About your facility

About your greens

About your fairways

Input costs

Water, energy and waste

ADDITIONAL

ENGLAND

About other areas of the course

Course closures

Monthly data

EGU SURVEY

Irrigation and fertiliser use

Pesticide use

activity

Green surrounds: input and activity

Fairways: input and activity

Semirough input and activity

Tees: input and activity

Rough grassland: monthly input and activity

The service

- Available free to registered courses at **www.bestcourseforgolf.org**
- Anonymous
- Compare – true benchmarking

The service


- Record

Course management: Benchmarking - Windows Internet Explorer

http://hangmail.benchmarking.co.uk/benchmarking/enter_benchmark_data?form=greens_input_en_1

Course management: Benchmarking

Test User, English Golf Union England | [Sign out](#) [return to best practice guidelines](#)

R&A Benchmarking  **ENGLISH GOLF UNION**
...at the heart of golf

[Benchmarking home](#) [Add data](#) [Graphs & data](#) [Printed report](#) [FAQs](#)

The course: Greens: monthly input and activity March 2009 Review

The information you enter in this section should be the **total** for all the greens on this course during the month.

Disease, weeds and pests

Disease

Type of disease:
Number of greens affected:

Weeds

Type of weed:
Number of greens affected:

Pests

Type of pest:
Number of greens affected:

Supplements

Type of supplement used:
Number of applications:

Growth regulator

Annual data
EGG SURVEY

- About your fertility
- About your greens
- About your fairways
- Input costs
- Water, energy and waste

ADDITIONAL ENGLAND

- About other areas of the course
- Course closures

Monthly data
EGG SURVEY

- Irrigation and fertiliser use
- Pesticide use
- Greens: input and activity
- Fairways: input and activity

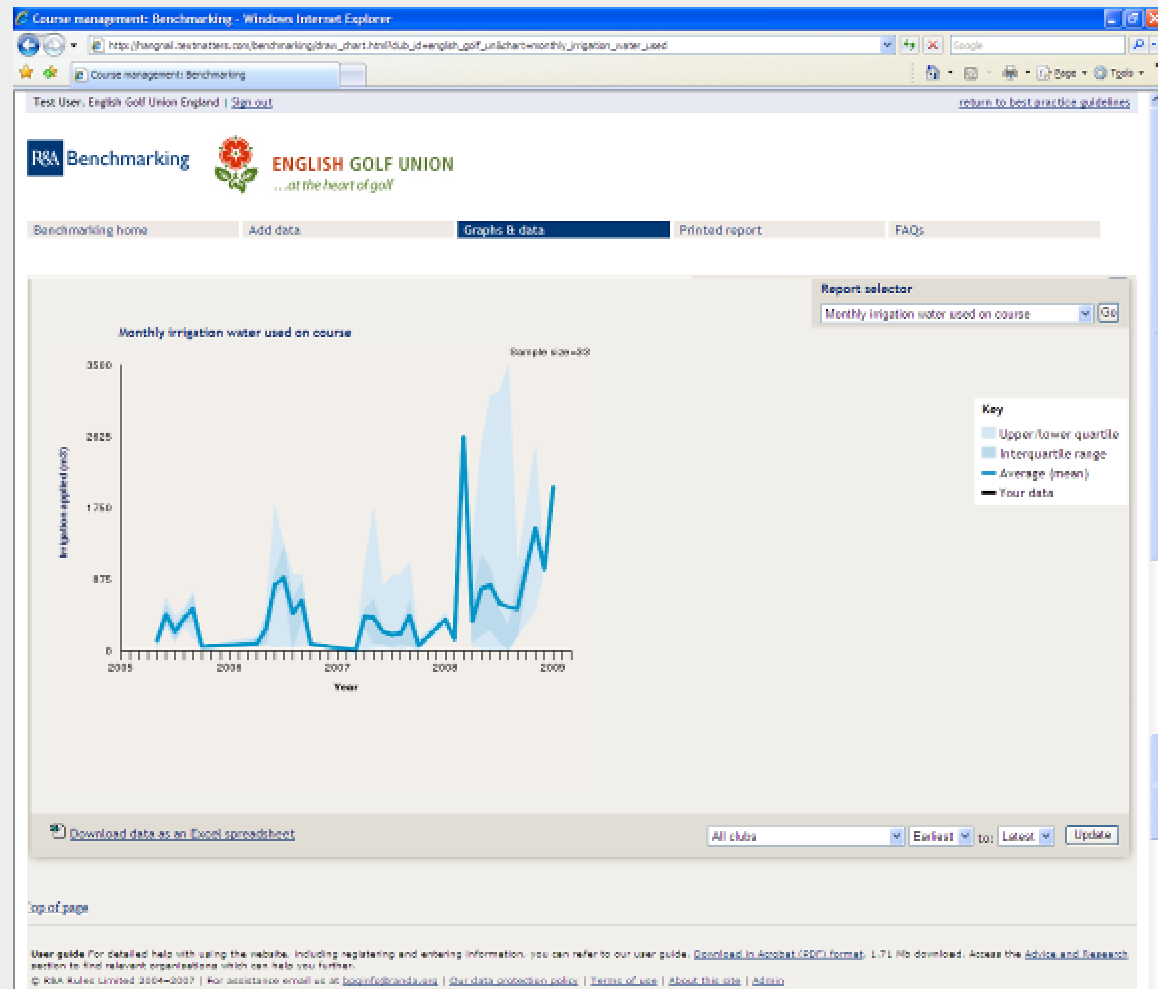
ADDITIONAL ENGLAND

- Weather observations



The service

- Record
- Monitor



The service

- Record
- Monitor
- Report

Course management: Benchmarking - Windows Internet Explorer

http://hangmail.co.uk/members.com/benchmarking/report.html

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Build a report

Compare my club data against
All clubs for the year 2009

Summary
This test will be included at the beginning of the report

Charts To include
Tick the data set to add it to the report

<input type="checkbox"/> Annual diesel consumption	<input type="checkbox"/> Annual fungicide costs
<input type="checkbox"/> Annual total labour costs	<input type="checkbox"/> Facility: Rounds played
<input type="checkbox"/> Greens: Mowing height against main grass type	<input type="checkbox"/> Greens: Mowing height against mowing frequency
<input type="checkbox"/> Greens: Construction type against rounds played	<input type="checkbox"/> Greens: Irrigation against main grass type
<input type="checkbox"/> Greens: Monthly mowing frequency	<input type="checkbox"/> Greens: Nitrogen use against main grass type
<input type="checkbox"/> Greens: Soil type against rounds played	<input type="checkbox"/> Greens: Verticutting frequency against main grass type
<input type="checkbox"/> Main grass type against irrigation	<input type="checkbox"/> Monthly irrigation water used on course

Data To include
Tick the data set to add it to the report

Annual	Monthly
<input type="checkbox"/> Waste	<input type="checkbox"/> Top dressing
<input type="checkbox"/> Annual materials costs	<input type="checkbox"/> Fertiliser use
<input type="checkbox"/> Hole number	<input type="checkbox"/> Tee disposal
<input type="checkbox"/> Water quality	<input type="checkbox"/> Irrigation use
<input type="checkbox"/> Climatic zone	<input type="checkbox"/> Divotting
<input type="checkbox"/> Water source	<input type="checkbox"/> Twiticide use
<input type="checkbox"/> Water use	<input type="checkbox"/> Mowing
<input type="checkbox"/> About the courses at your facility	<input type="checkbox"/> Disease, weeds and pests
<input type="checkbox"/> Type of facility	<input type="checkbox"/> Course closure
<input type="checkbox"/> External advice	<input type="checkbox"/> Growth regulator
<input type="checkbox"/> Energy use	<input type="checkbox"/> Supplements
<input type="checkbox"/> Soil type	<input type="checkbox"/> Weeding agent
<input type="checkbox"/> Site and use of your course	<input type="checkbox"/> Baling
<input type="checkbox"/> Land ownership: The land is owned by	<input type="checkbox"/> Overseeding
<input type="checkbox"/> Soil chemistry	<input type="checkbox"/> Aeration
<input type="checkbox"/> Say to grass types	<input type="checkbox"/> Scarification
<input type="checkbox"/> Holes	<input type="checkbox"/> Water courses
<input type="checkbox"/> Annual machinery costs	
<input type="checkbox"/> Annual labour costs	



Benefits

Improve understanding of maintenance on:

- Economics (revenue and expenditure)
- Environment (footprint and compliance)
- Golfers (playing quality and disruption)

Benefits

Benchmarking will provide the evidence that golf's national and international governing bodies need to enhance the reputation of the game amongst the environmental movement and regulators.

Based in St Andrews, The R&A is golf's governing body and the organiser of The Open Championship. The R&A is committed to working for golf and operates with the consent of 136 organisations, from the amateur and professional game, and on behalf of over 30 million golfers in 123 countries.



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