Improving irrigation efficiency

5 minute golf irrigation performance assessment

Irrigation is an essential component in sports-turf management. Getting it right can save water, nutrients and energy. But how well do you know your irrigation system? Please circle one answer for each question.

Q1. Do you know much water you need (m^3) in a season to meet total golf course irrigation demand and how it varies?

1 No idea
2 I have a rough idea
3 Someone measures it for me
4 Yes, we record the irrigation and I compare the volumes each year

Q2. Do you know how much water your golf course needs (m^3) in a peak summer month?

1 No idea
2 I have a rough idea
3 Yes, computer controller records it automatically but I have never looked at data
4 Yes, computer controller records it and we then analyse the data at the end of each year

Q3. Do you have a strategy for managing periods of limited water availability?

1 No plan
2 We have given it limited consideration
3 We have a rough plan on how to cope
4 We have a detailed strategy to use irrigation when water supplies are limited

Q4. How efficient do you think your irrigation system is?

1 Don't know
2 It's old but seems to work OK
3 It's a good system and provides reasonable uniformity
4 The system is excellent with high degree of control and uniformity

Q5. Does your irrigation system operate at its 'design' pressure in each part of the course?

1 No idea
2 No, we have a low pressure problem
3 Yes, it works well on most parts of the course
4 Yes, it works really well

Q6. How uniformly does your system apply irrigation water across your course?

1 No idea
2 Large variations across the course
3 Some variation depending on exposed greens
4 Only minor variations

Q7. Do you know the typical rate of water applied (e.g. m^3/hr) by your system?

1 No idea
2 Based on manufacturer's information only
3 Measured some time ago
4 We measure flow rates each year and compare with the computer controller records

Q8. What is the current physical condition of your pumping, distribution and irrigation application system?

1 No idea
2 Major repairs are required
3 Minor repairs are required
4 No repairs required

Q9. Do you record the volume of water applied to each part of the course?

1 Not recorded
2 We only record total (seasonal) water use to pay the bills
3 Yes, we record water use for each part of the course via the computer controller and check it.

Q10. Do you use a scientific tool (e.g. TDR probe, tensiometer, water balance computer model) to schedule your irrigation applications?

1 No, just visual inspection only
2 We use a scientific tool for scheduling on some greens
3 We use a scientific scheduling tool for all greens

Q11. Do you modify your irrigation applications in response to changing weather conditions?

1 No, the irrigation timer is fixed
2 Yes, sometimes we modify the precipitation rates
3 Yes, we usually modify precipitation rates
4 Yes, we always modify precipitation rates depending on the weather

Q12. Do you think you could save water by becoming more efficient?

1 Don't know
2 No, we would use more water if our system was more efficient
3 Yes, maybe we could reduce some pipe leakages and improve sprinkler efficiency
4 Yes, definitely, we could adopt better scheduling techniques if we had a more efficient system

Assessing your current practices will help you to identify opportunities for improving the operation and management of your irrigation system

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