

Improving irrigation efficiency

The 5 minute irrigation performance checklist

Irrigation is an essential component of production for many high value crops. In a dry year, getting it right pays real dividends. But how well is your irrigation system performing? Circle one answer for each question.

Q1. Do you have enough water in a season to meet your total crop irrigation demand?

- 1 Don't know
- 2 Inadequate volume
- 3 Adequate in an average year
- 4 Adequate in all years

Q2. Can you abstract enough water to meet your crop water requirements in a peak month?

- 1 Don't know
- 2 Inadequate volume
- 3 Adequate in average year
- 4 Adequate in all years

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

- 1 No plan
- 2 Limited consideration
- 3 Some consideration
- 4 Detailed strategy

Q4. How efficient is your on-farm storage and distribution system?

- 1 Don't know
- 2 OK
- 3 Good
- 4 Excellent

Q5. Does your irrigation system (e.g. gun, boom) operate at its design pressure in each field?

- 1 Don't know
- 2 No
- 3 Yes, in most fields
- 4 Yes, in all fields

Q6. How uniformly does your system apply irrigation water within the field?

- 1 Don't know
- 2 Large variations
- 3 Some variation
- 4 Only minor variations

Q7. Do you know the rate of water applied (e.g. m³/hr) by your system?

- 1 Don't know
- 2 Based on manufacturer's information only
- 3 Measured some time ago
- 4 Measured routinely



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

- 1 Don't know
- 2 Major repairs required
- 3 Minor repairs required
- 4 No repairs required

Q9. Do you measure and compare your crop returns (yield and quality) against the volume of water applied?

- 1 Not measured
- 2 At farm level only
- 3 Sometimes at field level
- 4 Routinely at field level

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

- 1 No, visual inspection only
- 2 Scientific tool on some crops
- 3 Scientific tool on all crops

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

- 1 No
- 2 Sometimes
- 3 Usually
- 4 Always

Q12. What is the quality of the water you use for irrigation?

- 1 Don't know
- 2 Marginal
- 3 Satisfactory
- 4 Good

Q13. Do you think you would save water by becoming more efficient?

- 1 Don't know
- 2 No
- 3 Maybe
- 4 Yes, definitely

Thank you for taking part in this exercise.

Assessing your current practices will help you to identify opportunities for improving the operation and management of your irrigation system. This is the first step in improving the efficiency of your water use.