

Using Water Wisely

■ Introduction

Planning for water shortages is a fact of life, especially as growth in Auckland's rural sector increases demand on the region's limited water resources.

This fact sheet is a guide for rural water users. It provides information about how to reduce water use on farms and horticultural blocks and avoid water shortages and the adverse effects they could have on crops and stock.



■ It's in your interest to use water wisely

Using water wisely can help you:

- Save money lost on unnecessarily long pumping times
- Reduce wear and tear on pumps
- Take advantage of cheaper night-time power rates
- Protect soil fertility and structure, avoid leaching and increase crop yield

■ Avoid water loss

Install a water-flow meter:

Water meters must be properly fitted and read regularly to provide accurate water use information. Have your meter checked to see if it is properly installed if you think your use is high.

■ **Check for leaks regularly and look for:**

- Puddles where and when there shouldn't be
- Evidence of run-off e.g. soil being scoured away
- Soil that is wet when it shouldn't be
- Water sprays from punctured pipes or loose nozzles

■ How to use water efficiently

Research into crop water requirements, including growers' water use records, is available from the Auckland Regional Council (ARC) upon request.

The following tips could help conserve and use water effectively:

- Check you are using the best irrigation method for your needs
- Avoid over-pressuring the irrigation system
- Upgrade your water system
- Don't over-water plants – too much water can lower plant productivity, leach nutrients from the soil and change soil structure
- Look for areas where plants are not doing as well as their neighbours and check for ponding, saturation or excessive soil moisture
- Adjust the location or flow of an irrigation outlet to reduce localised over watering and ponding

■ Monitor your water use

Patterns in your water meter records may help increase the effectiveness of your irrigation schedule. Recording rainfall, soil moisture and evapotranspiration (figures available in *NZ Herald*) will show you how often you really need to irrigate.

- Use tensiometers and/or a neutron probe service to measure soil moisture or ask an agricultural, horticultural or soils consultant to help you. If nothing else, use a rain gauge
- Schedule irrigation periods around rainfall and soil moisture measurements instead of using an automatic timer
- Experiment with different irrigation rates
- Use mulch or other ground cover to stop the growth of thirsty, unwanted weeds
- Install drip irrigation under mulch
- Avoid irrigating in the heat of the day
- Soak plants less frequently
- Re-use processed water or treated wastewater e.g. a settling pond or tank may allow for the re-use of vegetable washing water; In piggeries treated wastewater can be reused for washing down sheds.



■ Minimise water use

- Wash poultry sheds less often and use low volume water blasters
- Plant shade trees to keep animals cool and reduce water demand in hot weather
- Avoid planting trees around troughs to prevent leaves from accumulating
- Plant shelter belts of deep-rooting trees to provide shade and reduce evaporation
- Clear ponds of thirsty weeds
- Consider other water sources to reduce demand from your bore, dam, stream or lake e.g. pipe the runoff from roofs into a storage tank or pond to supplement water supplies.

■ For more information

The ARC has a range of fact sheets about using, taking and diverting water. Copies are available online at www.arc.govt.nz or upon request. Topics include:

- Complying with your water permit
- What's all this about dams?
- Geothermal water
- Why you have to fit a water meter

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