2014 Regional Snapshot

Is water-use efficiency improving in our agricultural areas?
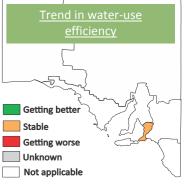
Water-use efficiency measures the proportion of rain that is used by rain-fed crops. It measures the efficiency of agricultural productivity, which is also influenced by soil type and condition, and land management systems.

Water-use efficiency of our irrigation industries is covered in a separate report.

The main crops grown in Adelaide and Mount Lofty Ranges NRM region are wheat and barley. Higher water-use efficiency means that grain yields are higher for a given amount of rain, and that the amounts of run-off, evaporation and drainage to water tables are lower.

Land managers can increase water-use efficiency by sowing crops earlier in the season, controlling weeds, retaining stubble and by reducing soil disturbance and compaction by machinery. Planting the most suitable varieties of crops, improving plant nutrition and controlling animal pests, weeds and diseases also improve water-use efficiency.

Trend in water-use efficiency

- Getting better
- Stable
- Getting worse
- Unknown
- Not applicable

State target

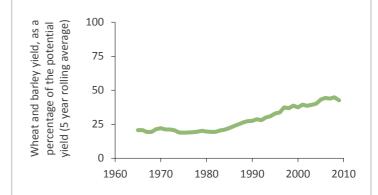**Improve soil and land condition**

Trend (2005-09)	Stable	Ongoing efforts will be needed to increase the water-use efficiency of our soils

For the wheat and barley crops in the Adelaide and Mount Lofty Ranges NRM region, water-use efficiency improved from 21 per cent to 43 per cent between 1965 and 2009, and was stable from 2005 to 2009 (map above and graph on right).

These improvements in water-use efficiency are due to adoption of improved farming practices and not an increase in rain, which was stable over those periods (graph below).
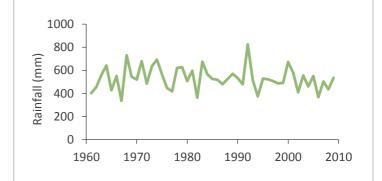
Where we are at (2009)	Fair	The amount of wheat and barley produced was 43 per cent of the potential yield

Land managers can further improve water-use efficiency.

Optimising the use of rain will help to maintain the long term productivity of cropping industries.

Reliability of information	★★☆☆☆	Fair

Further information:
Technical information for this report
Soil and land condition monitoring in South Australia

Government of South Australia