



Australian Government

National  
Landcare  
Programme



# Land management practice trends in Australia

**Building on success**

**New tools and information for the Landcare community**



# The importance of good land management practices

## Sustainable land management practices benefit soil health and productivity.

Improving soil condition is important to agricultural productivity and the quality of ecosystem services provided to the community from rural lands. Reducing soil loss through wind and water erosion, building soil carbon and managing soil acidification processes increase the land’s ability to provide clean air and water. Reducing soil loss also helps to build productivity, protect biodiversity and maintain the resilience of agriculture to climate variability, while producing food and fibre.

## Australian Government funding

The Australian Government has provided substantial funding to projects that support sustainable land management practices.

From July 2008 to June 2014, over \$750 million was approved for projects to improve soil and biodiversity management practices on-farm across Australia.



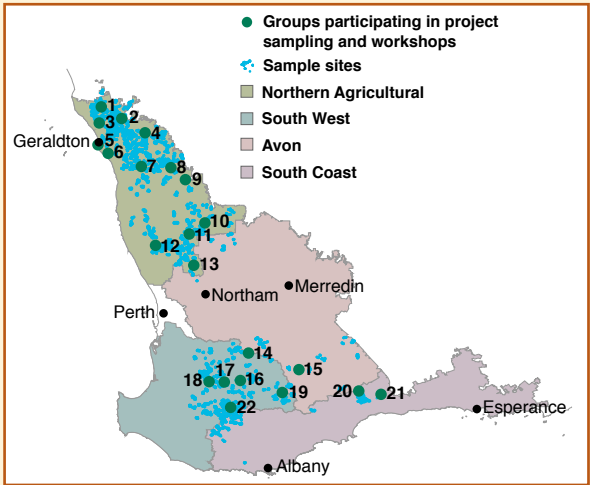
# Tracking practice change

Changes to on-farm practices are being monitored by the Department of Agriculture using data from Australian Bureau of Statistics’ (ABS) biennial surveys of 33 700 of Australia’s 128 917 agricultural businesses (farmers) and the five-yearly agricultural census.

Reports on the level of adoption of key land management practices for the grazing, cropping, horticulture and dairy industries are prepared by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES).

## Case studies

### Managing soil acidity in Western Australian wheatbelt



Soil sampling in the Western Australian wheatbelt shows extensive subsurface soil acidification. This prevents crop roots from growing deep into the soil to access moisture and nutrients.

1860 farmers from 22 farmer groups participated in a project to improve acid soil management, funded by the Australian Government and led by the Western Australian Department of Agriculture and Food.

Farmers have used the results of this project to improve their soil condition. Agricultural lime sales in Western Australia (1.6 million tonnes in 2014) have more than doubled since the project started.

## Accessing practice change data

The results are available on the ABARES Monitor website in the Land Management Practice Trends in Australia data set.

You can view detailed statistics on the rate of adoption of tillage practices, ground cover management, soil testing and management of soil acidity, as well as farm manager characteristics.

The data set will be updated to include information on rates of nitrogen, phosphorus and potassium fertiliser usage as well as information about biodiversity protection on-farm. Data from the most recent ABS survey of agricultural businesses (2012-13) will also be added.

### Glenelg River Project

Community groups and farmers in the Glenelg Hopkins natural resource management region played a major role in improving regional biodiversity. In the Glenelg River catchment, using Australian and Victorian government funds, 659 landholders and community groups have:

- » completed 1725 kilometres of riparian fencing
- » direct-seeded over half a million trees on nearly 800 kilometres of waterway frontage
- » opened 977 kilometres of the Glenelg River and its tributaries to fish movement.



## What is the Monitor?

The Monitor is an online tool that delivers a broad range of climate, production, biophysical and economic information – including trends in farming practices – across Australia.

Data can be accessed at the national, state and natural resource management region level. This includes a mapping interface for viewing different spatial data against region types.

### It's a powerful tool that can help you:

- » track trends in the adoption of key land management practices over time
- » access data at the national, state and natural resource management region level
- » report on returns on investment of funding.

It can also be used as an input to planning the investment needed at regional, state and national levels to:

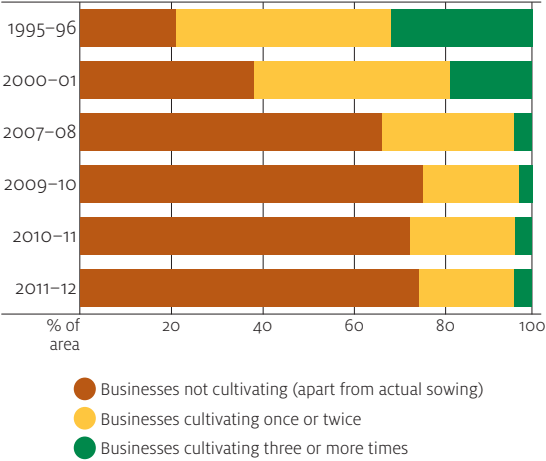
- » improve soil condition
- » improve the long term sustainability of agricultural industries.





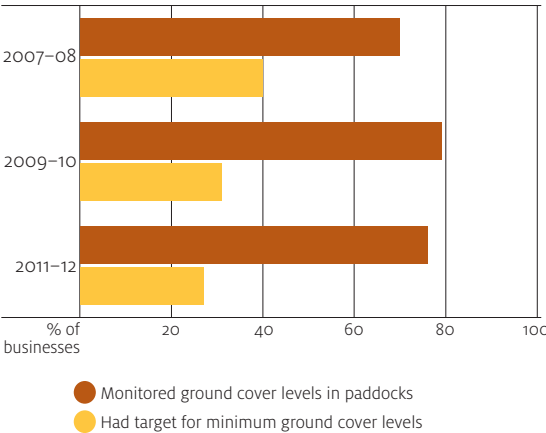
# Land Management Practice Trends in Australia, some examples from the Monitor

The percentage of crop area reported by broadacre cropping businesses under different cultivation intensities



Nationally, over 70 per cent of the area prepared for crops and pastures used no cultivation apart from sowing.

The percentage of grazing businesses monitoring ground cover in paddocks and with targets for minimum ground cover levels



Nationally, the proportion of grazing businesses monitoring ground cover levels exceeds 70 per cent. Nationally, the percentage of businesses setting ground cover targets has decreased from 40 to 27 per cent over the survey period.



# What is the data telling us?

The data indicates that trends for most practices affecting soil condition are moving in the right direction, except those associated with soil acidification (soil testing and liming where soil pH (CaCl<sub>2</sub>) is less than 6) for cropping, dairy, horticulture and intensively managed grazing. Better ground cover management is needed, particularly in pastoral regions, to reduce soil loss and improve the quality and perennial nature of forage.

# Accessing the Monitor

The Land Management Practice Trends in Australia dataset on the Monitor can be accessed at [agriculture.gov.au/abares/monitor](http://agriculture.gov.au/abares/monitor) then click on Explore.

# Using the Monitor

A quick start guide to help you access the land management information is available at [agriculture.gov.au/access/nlp/data](http://agriculture.gov.au/access/nlp/data).

# More information about sustainable land management

NRM Knowledge Online [nrmonline.nrm.gov.au](http://nrmonline.nrm.gov.au) provides an open access digital archive for information derived from Australian Government funded natural resource management activities.

## Land Management Practice Trends in Australia on the Monitor

1. Select Location

First Level RegionAustralia

Region TypeNation

RegionAustralia

1000 km

500 mi

2. Select Categories and Analysis Types

Date RangeJul2013toJul2014

☒ Land Management Practice Trends in Australia

**Livestock grazing**

a. Maps

Location of grazing land

Soil acidification risks for more intensively managed grazing land

b. Land management practices

Percentage of grazing (beef cattle/sheep) businesses outside

Percentage of grazing (beef cattle/sheep) businesses outside

Percentage of grazing (beef cattle/sheep) businesses monitored

c. Farm management characteristics

Average age of managers, average years managing their hold

Landcare membership: percentage of grazing (beef cattle/sheep)

Sources of information or advice used for making decisions by

Businesses participating in projects or receiving funding, as a

**Broadacre cropping**

a. Maps

Location of cropping

Cropping areas with low, moderate and high risk of soil acidification

b. Land management practices

Percentage of businesses using different cultivation intensities

Percentage of crop area reported by broadacre cropping businesses

View Results

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Digital copy available at [www.nrm.gov.au/publications](http://www.nrm.gov.au/publications)