

Agricultural land

Soil acidity

SA trend and condition report card 2020



STATEWIDE



Trend
Getting worse



Condition
Fair



Reliability
Very good

Trend

Since 2009, the trend in acidity of agricultural soil has been getting worse.

Soil acidity reduces soil health, which affects agricultural productivity where the soil pH is below 5.5. Increasing soil acidity can be counteracted by adding lime to the soil. If not enough lime is applied over time, the soil will become more acidic. The amount of lime used each year to manage acidic soils is monitored to help estimate the trend in soil acidity.

Overall, not enough lime is being used, so soils are becoming more acidic, and the area of land with acidic soils is increasing.

Since 2005, soil acidity has continued to increase (worsen) in the Northern and Yorke (NY), Murraylands and Riverland (MR), and Limestone Coast (LC) landscape regions. The soil acidity trend is stable in the Eyre Peninsula (EP), Hills and Fleurieu (HF), and Kangaroo Island (KI) regions (top figure).

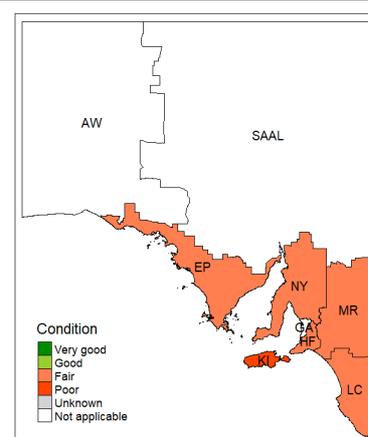
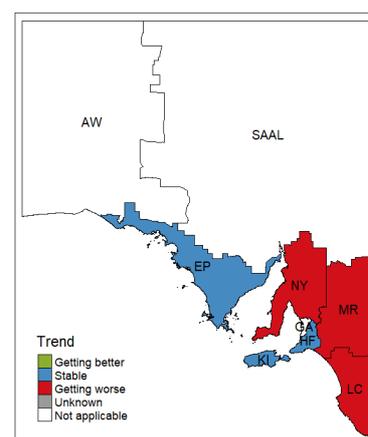
Condition

Soil acidity is fair, with two-thirds of acid-prone soils in the agricultural areas of the state being acidic.

The condition rating for soil acidity depends on the amount (proportion) of acid-prone soils that are currently acidic. Statewide, 67% of acid-prone agricultural soils are acidic, giving a fair condition rating. Most of the agricultural regions have a fair condition rating for soil acidity (bottom figure).

Adequate application of lime is required to overcome increasing acidity and maintain soil health and the productivity of important agricultural land in South Australia.

Soil acidity is getting worse across South Australia.



Why is agricultural land important?

Agricultural land supports South Australia's agricultural industries, which are worth \$7.4 billion annually.

Soil acidity reduces the growth and production of most agricultural plants. The annual loss of agricultural production in South Australia due to soil acidity is estimated at \$88 million.

What are the pressures?

About 20% of South Australia's agricultural land has soils that are prone to acidity.

Agricultural production accelerates soil acidification. Acidification rates are increasing due to higher agricultural productivity and greater use of nitrogen fertilisers.

Soil acidification is a complex chemical process, and its effects are not always recognised or understood. Treatment of acidic soils relies on the availability of good quality and affordable lime, which varies over time and between regions.

What is being done?

The South Australian Government works with industry, agribusiness, advisers and farmer groups to increase awareness, detection and treatment of soil acidity.

The Managing Soil Acidification Action Plan guides activities to improve management of soil acidity.

Technology is now available to map pH variation within paddocks so that lime application is targeted where it is needed.

Soil mapping information and soil test data are used to estimate the extent and severity of soil acidity.

For further information, see [Technical information](#)



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