

Southwest Australia loses its Mediterranean climate

March 7 2016, by Tony Malkovic, Sciencenetwork Wa



In effect, that means less rain in the growing season over May-October, less winter waterlogging of land and more summer rains. Credit: Hadi Zaher

Rainfall monitoring data shows WA's south-west has been losing its Mediterranean climate over the past 16 years and now has considerably less winter rainfall and a corresponding increase in summer rains.

The changing climate and rainfall have major implications for Wheatbelt farmers who have to adapt to an earlier [growing season](#) by some four to five weeks.

The changes are mainly linked to barometric changes involving a weakening Indian Ocean trough and rising [sea surface temperatures](#), Dr David Stephens says.

Dr Stephens is an agro-meteorologist with the Australian Export Grains Innovation Centre (AEGIC).

"Since 2000, we have settled into a new climate," he said last week as he presented new rainfall zone maps at the Grains Research and Development Corporation's (GRDC) research update in Perth.

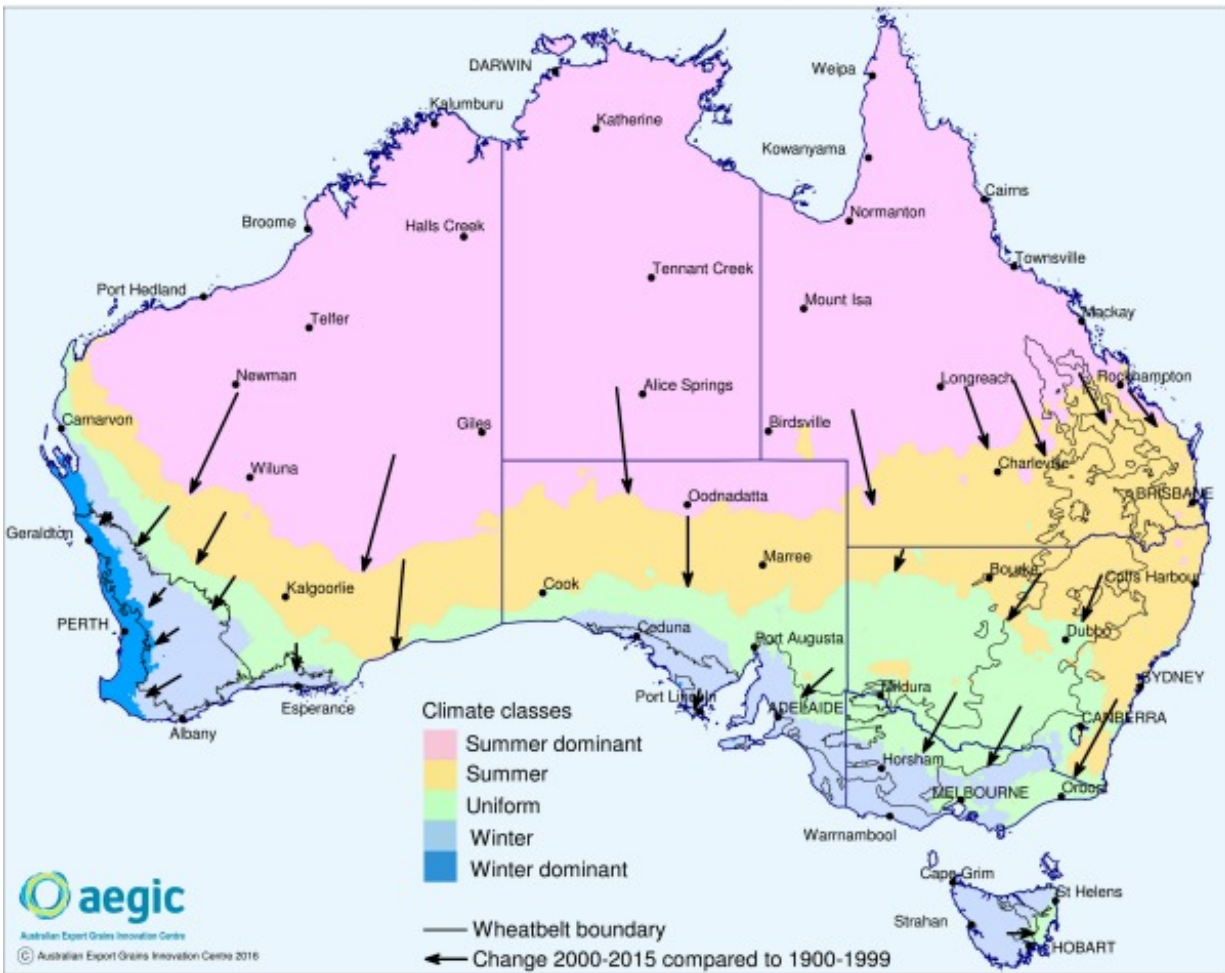
He said the changes experienced by WA in recent decades are significant, and are among some of the largest in the world.

The new seasonal rainfall zone map shows the contraction of winter rains across the Wheatbelt and a uniform rainfall zone developing along the more marginal eastern edge of the Wheatbelt.

In effect, that means less rain in the growing season over May-October, less winter waterlogging of land and more summer rains.

Australia Seasonal Rainfall Zones

Based on rainfall data 2000-2015



Saying ‘ciao’ to our Mediterranean climate...AEGIC’s new rainfall map shows the extent of WA’s and Australia’s changing rainfall patterns. Credit: AEGIC

"So on average, we've seen a 52mm reduction in our growing season rainfall, which is a 20 per cent decrease over the long-term," Dr Stephens said.

"Summer rainfall has increased 27mm—which is a 29 per cent increase.

"That's the overall change."

He also showed data confirming such rainfall changes at several towns such as Mullewa, Moora, Katanning, Lake Grace, Southern Cross and Scaddan.

Dr Stephens said that records showed farmers traditionally sowed their crops in early-mid June, but now that's been brought forward to early May.

"So sowing is now occurring 28 days earlier," he said.

As well as that, the growing season is now some 11 days shorter.

"So not only are we planting earlier but we're getting warmer mean temperatures and the crops are hurrying up their development, so we're getting a much shorter growing season," he said.

He concluded that there is some good news for farmers who can manage and adapt their operations to WA's 21st Century climate.

"People who have [adapted] have made money, and there are people who have made lots of money in the last 15 or 16 years," he said.

This article first appeared on [ScienceNetwork Western Australia](#) a science news website based at Scitech.

Provided by Science Network WA

Citation: Southwest Australia loses its Mediterranean climate (2016, March 7) retrieved 27 April 2024 from <https://phys.org/news/2016-03-southwest-australia-mediterranean-climate.html>

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