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El Nino looms in the Pacific

The frost season is extended, adding to farmers' woes

AUSTRALIA remains on course for its first El Nino in more than four years, a weather event that typically brings a drier-than-average winter and spring to much of southern Australia and active bushfire seasons by summer.

Warm sub-sea water temperatures – in places as much as six degrees above normal - continue to spread eastwards in the tropical Pacific, a key precursor to an El Nino forming, the Bureau of Meteorology said.

The Bureau rates the likelihood of an El Nino at more than 70 per cent, with confirmation possible in the next month or so, manager of the bureau's climate prediction services. Andrew Watkins said.

"We're waiting to see the response from the atmosphere," Dr Watkins said, adding that that signal make take months to become clear.

Normally, trade winds blow from east to west along the equatorial Pacific. As warm waters spread eastwards as they are now, sea temperature differences narrow, causing those winds to weaken and clouds to build up near the date line.

The El Nino Southern Oscillation (ENSO) is seen as having the greatest single influence on the global climate of any weather phenomenon and the hottest years on record – such as 2010 and 1998 – have all followed the start of El Ninos.

For Australia, such years are associated with below-average rainfall, particularly in the Murray-Darling Basin, and fewer than normal cyclones. The snow season also tends to be a poor one, while the frost season is extended, adding to farmers' woes, Dr Watkins said. However, countries on the eastern Pacific fringe tend to get wetter-than-usual years – a shift drought-hit California may welcome.

A so-called predictability barrier exists each autumn as El Nino Southern Oscillation conditions naturally reset. That also makes it difficult to tell how severe the El Nino – and its impact on rainfall and temperatures – will be.

"It's too early to say what the strength of the event will be," Dr Watkins said.

Senior research associate at the University of NSW's Climate Change Research Centre, Agus Santoso, agreed that an El Nino is likely this year. "Given what we've seen in recent months, it's likely to be strong but it's not certain," he said.

El Nino patterns tend to lift global temperatures by 0.1-0.2 degrees, increasing the prospects of a record year given climate change is steadily increasing background conditions.

"When you have an El Nino you are more likely going to exceed the record in global warming," Dr Santoso said.

Australia posted its hottest year on record in 2013 even with neutral ENSO conditions. Much of eastern Australia has already endured rainfall deficiencies over the past year.

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