

News in brief



AUSTRALIANS VOTE FOR STRONGER CLIMATE ACTION

Action on global warming was a key election issue for Australian voters, who on 21 May ousted the incumbent Liberal–National coalition in favour of the centre-left Labor Party.

Researchers in Australia are cautiously optimistic that the new government will take stronger action than its predecessor to reduce greenhouse-gas emissions.

As *Nature* went to press, the Labor Party, led by new Prime Minister Anthony Albanese, had won 77 seats, enough to form a majority government. Fourteen seats had also been won by the Greens and independent candidates, many of whom promised to do more about global warming than the former government.

Albanese has promised to end “the climate wars” that have plagued the nation’s politics for more than a decade. Labor has committed to reducing emissions by 43% of 2005 levels by 2030 and to boosting the share of electricity produced from renewable sources to 82% by 2030, up from 31% in 2021. The Liberal Party had committed only to reducing emissions by 26–28% of 2005 levels in the same period.

The result is “huge” for those pushing for more ambitious climate action, says Jody Webster, a marine geoscientist at the University of Sydney.

GENE-EDITED TOMATOES COULD BE VITAMIN D SOURCE

Gene-edited tomato plants that produce a precursor to vitamin D could one day provide an animal-free source of the crucial nutrient.

When the gene-edited plants are exposed to ultraviolet light in the laboratory, some of the precursor, called provitamin D₃, is converted to vitamin D₃. But it is not known how the tomatoes will fare when grown outside.

To engineer them, researchers took advantage of a feature of plants in the Solanaceae family. Some plants naturally produce forms of vitamin D, which is often later converted into chemicals that regulate the plants’ growth. Blocking the conversion pathway can cause the vitamin D precursor to accumulate, but also leads to stunted plants. However, solanaceous plants such as tomatoes (*Solanum lycopersicum*) also have a biochemical pathway that converts provitamin D₃ into defensive compounds. Shutting down that pathway, the team found, led to an accumulation of the precursor without affecting the plants’ growth in the laboratory (J. Li *et al.* *Nature Plants* <https://doi.org/hv7f>; 2022).

If the tomatoes perform well in field studies, they could eventually join a limited list of nutritionally enhanced crops that are available to consumers.



CLIMATE CHANGE MADE SOUTH ASIAN HEATWAVE 30 TIMES MORE LIKELY

Human-induced climate change made the deadly heatwave that gripped India and Pakistan in March and April 30 times more likely, according to a rapid analysis of the event (see go.nature.com/3nzwag). Temperatures began rising earlier than usual in March, shattering records and claiming at least 90 lives. The prolonged heat has yet to subside.

“High temperatures are common in India and Pakistan, but what made this unusual was that it started so early and lasted so long,” said co-author Krishna AchutaRao, a climate scientist at the Indian Institute of Technology in New Delhi, in a press release. “We know this will happen more often as temperatures rise and we need to be better prepared for it,” AchutaRao said.

In India, March’s temperatures were consistently 3–8°C above average, reaching highs of 44°C – the highest they’ve been since records began 122 years ago. Pakistan reported temperatures that exceeded 49°C in some regions. The heatwave was coupled with below-average rainfall. Pakistan received 62% less rainfall than usual, and India 71% less. Although the lack of rain added to heating from the

land’s surface, it also reduced the humidity of the heatwave.

To characterize the extreme heatwave and quantify the role of climate change, a global team of researchers from the World Weather Attribution (WWA) initiative looked at the average daily maximum temperatures across northwestern India and southeastern Pakistan between March and April. They then compared the possibility of such an event occurring in today’s climate compared with that in pre-industrial times, using a combination of climate models and observation data going back to 1979 in Pakistan and 1951 in India.

The team found that climate change increased the probability of the heatwave occurring to once in every 100 years; the odds of such an event would have been once in every 3,000 years in pre-industrial times, says Zeke Hausfather, a climate scientist and researcher at Berkeley Earth, a non-profit organization in California that focuses on climate change and analysis of global temperatures. The researchers also show that the event was around 1°C warmer than it would have been in a pre-industrial climate.