<u>NOTE</u>: This article may contain facts and information that are out-dated. It is presented for your interest only and should not be relied upon to make a decision regarding the use of Glyphosate.

The Glyphosate Debate

The chemical glyphosate is the most widely used herbicide in the world. From broadacre farming to fruit orchards and small crops, farmers have become heavily reliant on its use for the control of unwanted vegetation.

So it was with surprise and some unease that the Australian farming community came to learn that the safety of the chemical had been successfully challenged in a Californian court, not once but three times and that the verdicts could ultimately impact their future use of the herbicide, while thousands of additional law suits are waiting to be heard.

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A California jury has awarded a couple more than \$2 billion in a verdict against Monsanto, a subsidiary of Bayer AG. This is the third recent court decision involving claims that the company's Roundup weed killer caused cancer.

The verdict represents the third such legal setback for the company in California since mid-2018. In March, a San Francisco jury awarded \$80 million to a man who blamed his cancer on his extensive use of Roundup.

Already many countries have either banned the use of the herbicide or severely limited its availability and imposed usage restrictions.

In Australia, the National Farmers Federation asserts "For many years, the NFF has put the safety of glyphosate under scrutiny and we are more than satisfied with the scientific rigour confirming its continued application."

"This scientific rigour includes the National Cancer Institute-supported 2018 Agricultural Health Study. This study followed more than 50,000 farmers who used glyphosate for more than 20 years. The work found no association between glyphosate herbicides and cancer."

In addition, Australia's chemical regulator, the Australian Pesticides and Veterinary Medicines Authority (APVMA) considers all relevant scientific information when determining the likely risk before registering a product. This includes considering the impact on human health and worker safety - including long and short term exposure to users, as well as many environmental health risks, and food residues.

Meanwhile, despite these certifications the Victorian Minister for Environment Ms Lily D'Ambrosio confirmed there was a Victorian Department of Environment, Land, Water and Planning review into how glyphosate products are used on public land.

Ms D'Ambrosio confirmed this step had been taken as a precaution following events in the United States, where groundskeepers, frequently using glyphosate in their work, have been among the successful plaintiffs against Bayer on the grounds that glyphosate, under the brand Monsanto Roundup has caused their cancer.

The current assessment by the APVMA is that products containing glyphosate are safe to use according to the label instructions.

Further adding to the uncertainty, a 2015 World Health Organisation International Agency for Research on Cancer assessment, categorized glyphosate herbicide in a group of chemicals that are 'probably carcinogenic to humans' based on a strength-of-evidence assessment.

However, in 2016 APVMA comprehensively reviewed the World Health Organisation IARC report and found no grounds for glyphosate's approved uses to be reassessed.

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Status on the use of glyphosate in other countries

Argentina Restricted Australia No national ban Austria Banned Belgium Individual use banned Brazil Blanket ban unlikely Canada some form of limit in eight provinces France Eliminate by 2021 with limited exceptions Germany Intends to seek an exit date **Greece** Approved a 5 year licence India Banned some states **Italy** Restricted public areas Netherlands Banned noncommercial use New Zealand No national ban Spain Banned in some cities & regions Sri Lanka National ban_lifted Sweden Planning to tighten rules on private use Switzerland Proposed ban

rejected UK No broad decision; some

UK No broad decision; some towns have limited its use

Still in Australia, the nation's crop protection sector peak body, CropLife Australia has come out swinging at the legal firms looking at potential court action on the grounds of the safety of glyphosate, labelling them 'ambulance chasers'.

"We cannot allow ambulance chasing law firms and anti-chemical activist groups to warp what is a highly regulated industry that provides products crucial for farmers to deliver safe, disease-free nutritious food," said a senior CropLife representative.

"Without herbicides, like glyphosate, we would not have access to nearly enough food to feed our nation, let alone contribute to feeding the world."

However notably, Nufarm which manufactures a number of glyphosate-based products in Australia, issued a statement to the Australian Stock Exchange acknowledging that corporate risk relating to glyphosate had increased in spite of the fact government regulators across the world continue to categorise the product as safe for use.

It said that, as a supplier of the herbicides, it was exposed to the risk of litigation and would continue to monitor the situation.

For now, retailers throughout Australia have not withdrawn glyphosate herbicides from sale.

In America the position is less clear. The U.S. peak body for the protection of human health, the Environment Protection Agency (EPA) reaffirmed its position in May this year that, when used according to label instructions, glyphosate is not carcinogenic.

This announcement contradicted decisions made by Californian juries that found it caused cancer in humans.

The reaffirmation was also made in the midst of concerns cited by CNN (U.S. news channel) of Monsanto's alleged undue influence over regulators.

CNN reported on company emails between Monsanto and EPA executives released in 2015 which appear to suggest Monsanto used its considerable resources to discredit those who argued that Roundup was unsafe.

Bayer has admitted that Monsanto executives had compiled personal information on critics of pesticides and herbicides across Europe, admitting such a list would be a breach of company policy and could even be illegal. Plus, unsealed court documents have revealed details about how Monsanto exerted pressure on the EPA and scientists to, in some cases, potentially falsify allegedly, scientific studies indicating the safety of glyphosate.

These issues all point to Monsanto's fears that the true nature of their product's safety would be revealed and that the company spent much time, energy and possibly money to prevent fair and honest scientific analysis.

In November 2015, European Food Safety Report (EFSA) published its conclusion in the Renewal Assessment Report (RAR), stating it was "unlikely to pose a carcinogenic hazard to humans". The European Union was largely informed by this report when it decided on the use of glyphosate in November 2017.

In September 2017, *The Guardian* reported that sections of the RAR used by EFSA were copy-pasted from a study done by Monsanto.

And in the same year, *The New York Times* also reported that Monsanto and Bayer AG tried to discredit independent research and scientists, as they swayed scientists at EPA overseeing the glyphosate review.

Two journalists writing for *Le Monde* won the 2018 European Press Prize for the "Monsanto Papers", a series of articles which described, among other things, Monsanto's lawyers' intimidation of IARC scientists after the release of the IARC finding that glyphosate was a "probable carcinogen"

At the end of the day a large plank of Bayer's arguments defending glyphosate has been that the EPA has repeatedly determined that glyphosate does not cause cancer. While that may be technically correct, given the questionable practices of Monsanto and relying so heavily on that one agency's administrative classification of glyphosate, there is a skew, a misrepresentation of the science on this issue. In fact, even the U.S. government itself is not in agreement. In April, a draft analysis by the Center for Disease Control and Prevention Board acknowledged that multiple studies have linked cancer and glyphosate.

Finally, U.S. journalist Carey Gillam wrote a book exposing papers that "show a cleverly orchestrated plan by Monsanto and others in the chemical industry to suppress evidence of harm that is associated with glyphosate-based herbicides like Roundup," she said.

She added "the science was still inconclusive as to whether glyphosate did cause cancer."