



# Herbicide Use in Kuranda Region

Spotlight on *RoundUp* &  
*other glyphosate-based herbicides*

January 2019

**Dubbo Regional Council to trial alternatives to glyphosate, Roundup**

Western Magazine, 11 Nov 2018

**Cancer Council calls for Australian review amid Roundup cancer concerns**

ABC News, 7 Oct 2018

**Monsanto ordered to pay US\$289 million to man who claims Roundup weed killer caused cancer**

ABC Local, 10 Aug 2018

**Blue Mountains Council to investigate reducing Roundup use**

Blue Mountains Gazette, 25 Nov 2018

**Weedkiller products more toxic than their active ingredient, tests show**

The Guardian, 8 May 2018

**Calls for inquiry after Four Corners report on Monsanto and glyphosate chemical, Roundup**

ABC Local, 8 Oct 2018

**Concerned about Roundup? Some local councils are already trying alternatives**

ABC Local, 15 Aug 2018



Image: Herbicide spraying around Kuranda

# The Monsanto Papers



[ABC Four Corners \(October, 2018\)](#) reveals Monsanto's campaign of deceit about RoundUp

For decades Monsanto (now Bayer) & regulators told us that *RoundUp* and its principle ingredient *Glyphosate* was safe.

safe enough to drink. . .  
safer than table salt!

But in 2018, a US jury ruled that *RoundUp* contributed to a school gardener's terminal cancer. He was awarded US\$289.2 million in damages.

Documents from the case reveal a decades-long campaign of deceit by Monsanto to protect their lucrative product.

## Key safety issues

- 1970s The laboratory testing for Monsanto implicated in fraud scandal with US EPA ruling *RoundUp* test results invalid
- 1980s New study prompt US EPA scientists to classify glyphosate as **possibly carcinogenic to humans**
- 1990s NY attorney general rules **Monsanto engaging in false advertising about safety**
- 1991 External laboratory tests of *RoundUp* found to be falsified - 15 people fined or imprisoned
- 2003 Monsanto toxicologist warns, "*you cannot say that Roundup is not a carcinogen... we have not done the necessary testing on the formulation to make that statement*"

2014 The World Health Organization's cancer agency IARC announces review of *RoundUp* & glyphosate.

Monsanto's lead toxicologist warns, "... what we have long been concerned about has happened. glyphosate is on for an IARC review"

2015 The IARC released their [report](#) classifying the world's most sold herbicide, *glyphosate*, as a **probable human carcinogen** causing huge worldwide reaction

2017 *European Union* approved a **limited** 5-year licence for glyphosate, with France declaring a ban within 3 years

2018 Jury awards school gardener **US\$289 million** in landmark case against Monsanto

Currently, **more than 9000 people** across the US are suing Monsanto, claiming *Roundup* caused their cancer

## WHO Publishes Full Probable Human Carcinogen Report on Glyphosate

Posted on Jul 30 2015 - 2:41pm by Sustainable Pulse

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The World Health Organization's cancer agency IARC has published the full report which caused a huge worldwide response, when they announced earlier this year that the World's most sold herbicide, glyphosate, is a probable human carcinogen.



Full IARC Report: [monographs.iarc.fr/ENG/Monographs/vol112/mono112-09.pdf](http://monographs.iarc.fr/ENG/Monographs/vol112/mono112-09.pdf)

Following the 2015 IARC report, a number of **countries, cities & states** have taken steps to **restrict or ban** glyphosate. These include Brussels, 400 towns in Argentina, 8 provinces in Canada, Czech Republic, El Salvador, Netherlands and Portugal. More details available [here](#)

# More Safety Concerns

There are many health & safety concerns associated with *RoundUp* / glyphosate

## Effects on human health

"Glyphosate, contrary to being essentially non-toxic, may in fact be the **most biologically disruptive chemical in our environment.**"

"Glyphosate could plausibly contribute to inflammatory bowel disease, obesity, depression, ADHD, autism, Alzheimer's disease, Parkinson's disease, MS, cancer, infertility, and developmental malformations."

[Anthony Samsel & Stephanie Seneff, \*Entropy\*, 2013](#)

2015 Adelaide university study has shown *Roundup* to be more **toxic to human reproductive cells** than glyphosate alone, as it was shown to be an **endocrine disruptor**.

[Fiona Young, Dao Ho, Danielle Glynn & Vicki Edwards, \*Integrative Pharmacology, Toxicology and Genotoxicology\*, 2015](#)

Tests for glyphosate routinely find traces in soil, water, food and human urine. A long-term US study indicated a 1200% increase in glyphosate levels in urine over a 20-year period since the mid-1990s

[P. Mills, I. Kania-Korwel, J. Fagan, L McEvoy, G. Laughlin & E. Barrett-Connor, \*Journal of the American Medical Association\* \(2017\)](#)

## Effects on environmental health

"This study demonstrates glyphosate is moderately persistent in the marine water under low light conditions and is highly persistent in the dark. **Little degradation would be expected during flood plumes in the tropics**, which could potentially deliver dissolved and sediment-bound glyphosate far from shore."

"(In seawater) glyphosate degraded most rapidly under low light conditions at 25°C with none detected by day 180, and most slowly in the dark at 31°C **where 52% remained by day 330.**"

[Philip Mercurio, Florita Flores, Jochen F. Mueller, Steve Carter, Andrew P. Negri, \*Marine Pollution Bulletin\*, 2014](#)

*How is chemical runoff  
via Barron River catchments  
damaging the **Great Barrier Reef?***

The European Chemicals Agency has classified glyphosate as "a substance causing serious eye damage and being toxic to aquatic life with long-lasting effects"

[European Chemicals Agency \(ECHA\), 2017](#)

# Why Glyphosate is not the Issue with RoundUp

As glyphosate is the declared "*active principle*" in glyphosate-based herbicides, it's the only one tested for regulatory purposes. However, research suggests that the so-called "*inert*" substances (formulants) in these herbicides are significantly more toxic.

**Glyphosate** may very well be a *red herring*, diverting regulators' attention away from the true toxic substances.

"It is commonly believed that *Roundup* is among the safest pesticides. This idea is spread by manufacturers, mostly in the reviews they promote, which are often cited in toxicological evaluations of glyphosate-based herbicides. However, **Roundup was found in this experiment to be 125 times more toxic than glyphosate....**

This **inconsistency** between scientific fact and industrial claim may be **attributed to huge economic interests**, which have been **found to falsify** health risk assessments and delay health policy decisions".

[R. Mesnage, N. Defarge, J. Spiroux de Vendômois, G. E. Séralini, BioMed Research International, 2014](#)

[N. Defarge, J. Spiroux de Vendômois & G.E. Séralini, Toxicology Reports, 2018](#)



"The compounds of the formulants [declared *inert* by manufacturers] and **not glyphosate** appeared as the determinants for cellular endocrine disruption, as well as for toxicity to human cells and plants."

## What's in the formulants?

Glyphosate is never used alone but mixed with chemical formulants, identified as mainly families of petroleum-based oxidized molecules such as polyoxyethylenamines (POEA). While declared inert by manufacturers, research demonstrates POEAs to be herbicides - NOT inert.

Disturbingly, most glyphosate-based and other herbicides tested were found to be contaminated with the heavy metals Arsenic, Chromium, Cobalt, Lead and Nickel at levels higher than permitted levels in water in the EU & USA. These heavy metals may originate from contamination during the manufacturing process - or they may be added intentionally.

# Implications for Kuranda

*RoundUp / glyphosate* is the herbicide of choice for conventional farmers as well as local, state & national bodies.

With the 2015 IARC report and the 2018 landmark ruling against Monsanto - a precedent has been set:

*RoundUp* and other glyphosate-based herbicides can no-longer be considered safe.

The evidence is publicly available and mounting.

Any private or public organisation using *RoundUp* risk being sued by employees and residents if their health is affected.

*Kuranda Regional Planning Group,  
Friends of the Earth FNQ & concerned residents  
demand that Mareeba Shire Council  
& other local service providers  
transition away from using poisons  
towards more sustainable and healthy weed  
management systems.*



Image: Byron Shire council workers using steam weeders  
Source: [Gladstone Observer, Dec 2017](#)



Image: Lord Howe Island volunteer hand-weeders  
Source: [Lord Howe Island Board](#)

# Transition away from *RoundUp* in Kuranda Region

Precinct Type	Purpose of herbicide use	Alternative Technologies
<b>Schools</b>	Aesthetic edging / weed control: concrete cracks & crevices, footpaths, kerbs and channels, drains, roadside verges	<ul style="list-style-type: none"> <li>• Steam weeding</li> <li>• Manual controls – hand-weeding, whipper snipper, brushcutting, weed matting, mulching</li> </ul>
<b>Community Facilities, eg. Amphitheatre, Recreation Centre</b>	Aesthetic edging / weed control: concrete cracks & crevices, footpaths, kerbs and channels, drains, roadside verges	<ul style="list-style-type: none"> <li>• Steam weeding</li> <li>• Seed-heading</li> <li>• Manual controls – hand-weeding, whipper snipper, brushcutting, weed matting, mulching</li> </ul>
<b>Shire roads, parks and waterways</b>	Aesthetic edging / weed control: concrete cracks & crevices, footpaths, kerbs and channels, drains, roadside verges	<ul style="list-style-type: none"> <li>• Steam weeding</li> <li>• Manual controls – hand-weeding, whipper snipper, brushcutting, weed matting, mulching</li> <li>• Revegetation with native species</li> </ul>
<b>Community Nurseries</b>	Regeneration areas	<ul style="list-style-type: none"> <li>• Steam weeding</li> <li>• Manual controls – hand-weeding, whipper snipper, brushcutting, weed matting, mulching</li> </ul>
	Revegetation areas	<ul style="list-style-type: none"> <li>• Revegetation with native species</li> </ul>
	Invasive plant species	<ul style="list-style-type: none"> <li>• Manual controls – hand-weeding, whipper snipper, brushcutting, weed matting, mulching</li> <li>• Steam weeding</li> <li>• Biological controls</li> </ul>



Precinct Type	Purpose of herbicide use	Alternative Technologies
<b>Kuranda Village Tourism Precinct</b>	Aesthetic edging / weed control: concrete cracks & crevices, footpaths, kerbs and channels, drains, roadside verges	<ul style="list-style-type: none"> <li>• Steam weeding</li> <li>• Manual controls – hand-weeding, whipper snipper, brushcutting, weed matting, mulching</li> </ul>
<b>Rural Titles</b>	Farm uses, eg. weed control	<ul style="list-style-type: none"> <li>• Manual controls – hand-weeding, whipper snipper, brushcutting, weed matting, mulching</li> <li>• Steam weeding</li> <li>• Seed-heading</li> <li>• Revegetation with native species</li> </ul>
<b>Rural Residential Titles</b>	Ornamental garden weed control	<ul style="list-style-type: none"> <li>• Manual controls – hand-weeding, whipper snipper, brushcutting, weed matting, mulching</li> <li>• Steam weeding</li> <li>• Seed-heading</li> <li>• Revegetation with native species</li> </ul>
<b>World Heritage Wet Tropics Area</b>	Controlling invasive weed species, weed control along environmentally sensitive riparian zones leading into the Great Barrier Reef.	<ul style="list-style-type: none"> <li>• Manual controls – hand-weeding, whipper snipper, brushcutting, weed matting, mulching</li> <li>• Steam weeding</li> <li>• Seed-heading</li> <li>• Revegetation with native species</li> </ul>
<b>State Forest adjoining WHWTA</b>	Forestry	<ul style="list-style-type: none"> <li>• Manual controls – hand-weeding, whipper snipper, brushcutting, weed matting, mulching</li> <li>• Steam weeding</li> <li>• Seed-heading</li> <li>• Revegetation with native species</li> </ul>
	QRail – weed control on and along tracks 5m either side	<ul style="list-style-type: none"> <li>• Steam weeding</li> <li>• Manual controls – hand-weeding, whipper snipper, brushcutting, weed matting, mulching</li> </ul>
<b>World Heritage Great Barrier Reef</b>	Unintended run off Chemical waste via catchments for Barron River	

# Use of *glyphosate*-based herbicides

## Kuranda Region Resident Survey

*Kuranda Regional Planning Group, Friends of the Earth FNQ* and other local residents are concerned about the use of herbicides in our ecologically sensitive environment, particularly the use of popular glyphosate-based herbicides such as *RoundUp*.

Having considered the information provided, please share your views about the use of toxic herbicides in our region:

[Kuranda Region Resident Survey](https://www.surveymonkey.com/r/8YS9F3H)

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