

# Glyphosate is the active ingredient in herbicides such as 'RoundUp'.

When sprayed, plant leaves absorb glyphosate which then acts to inhibit a specific enzyme, EPSP synthase, essential to plant growth.

Glyphosate based herbicides also contain surfactants (wetting agents) and adjuvants (herbicide activity improver).

Overseas research has shown the surfactant contained in glyphosate, POEA (polyethoxylated tallow amine) is likely very toxic to humans, animals and the environment.

Adjuvants remain a trade secret and are listed as an inert substance.

Despite its relatively benign reputation, overseas research has shown 'RoundUp' to be the most toxic of herbicides...with 8 formulations out of 9 up to one thousand times more toxic than their active principles alone.

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## WHAT IS GLYPHOSATE?

### Project Pollinator First



Project Pollinator First is an initiative of the Bee Collective

# Glyphosate is poisoning our water, soil and food.

Glyphosate based herbicides, also known as 'RoundUp' are a commonly used agricultural and domestic herbicide.

Monsanto started selling glyphosate in 1974 and since that time it has become the most intensively used herbicide across the world

- Glyphosate perturbs the gut microbiota of honey bees.
- Glyphosate in Roundup may harm gut bacteria in humans.
- Glyphosate is a possible endocrine disruptor, interfering with the body's hormones.
- Glyphosate may contribute to antibiotic resistant bacteria.
- Glyphosate exposure correlates to more severe cases of non-alcoholic fatty liver disease.
- Glyphosate overuse causes herbicide resistance.
- Glyphosate has been linked to Non-Hodgkin lymphoma, also known as 'farmers cancer'.

## Thousands of lawsuits across the world.

In 2015 the World Health Organization International Agency for Research on Cancer announced that 'RoundUp' and similar products were assessed as 'probably carcinogenic to humans'.

In 2016, a US Groundskeeper, Dewayne Johnson filed a lawsuit against Monsanto claiming glyphosate caused his cancer and in 2018 Mr Johnson was awarded \$289m in damages.

This paved the way for thousands of lawsuits across the world, with Australia to soon hear its first case.

## Countries ban glyphosate.

Twenty countries across the world have either banned glyphosate-based herbicides or are reviewing their use of the product. These countries include;

Argentina	New Zealand
Brazil	Portugal
Canada	Scotland
Columbia	Solvenia
France	Spain
Greece	Sri Lanka
Italy	Sweden
Luxembourg	Switzerland
Malta	United States
Netherlands	Vietnam

## Monsanto lied to us.

Since 1974, Monsanto has claimed that based on the research and evidence, glyphosate is a safe product. Leading up to the Johnson case in 2017-18, a tranche of documents about Monsanto's glyphosate research was released. These documents are known as the 'Monsanto Papers'.

The documents reveal Monsanto sponsored ghostwriting of articles published in toxicology journals and lay media, interfered in the peer review process, behind-the-scenes influence on retraction and the creation of an 'academic' website as a front for the defense of the Monsanto product.

## APVMA

The Australian Pesticides and Veterinary Medicines Authority (APVMA) uses this same research as part of its weight-of-evidence assessment to greenlight 'RoundUp' and glyphosate-based herbicide use in Australia.

Our Federal, state and local governments consistently use the APVMA's approval as evidence that glyphosate-based products are safe to use.

Coupled with a targeted and sustained response from industry, consumers are left in the dark as to the true impact of this chemical.