

Hon Lianne Dalziel  
Mayor of Christchurch  
[ccc-plan@ccc.govt.nz](mailto:ccc-plan@ccc.govt.nz)

Dear Hon Lianne Dalziel

## **Christchurch City *Draft* Annual Plan 2016-2017 and Amended Long Term Plan 2015-2025**

### **1. Introduction**

Agcarm submits in response to the Christchurch City *Draft* Annual Plan 2016-2017 and Amended Long Term Plan 2015-2025. Our particular focus is in response to the proposal - *Changes to weed killer use*, p.33 of the Plan.

### **Changes to Weed Killer Use**

*Question 9 – What is your preferred option and why?*

**Agcarm strongly submits in support of the option - Continuing to use glyphosate: this will help us to manage weeds without any extra cost.**

### **2. Discussion**

#### **2.1 Why Agcarm supports this option - Facts on Glyphosate**

After reviewing a video replay of the Councillors discussion with city council staff on the current use of glyphosate in public areas *ref: Item 58, Glyphosate Herbicide Use* <http://councillive.ccc.govt.nz/video/6240> held the on 10 March 2016, Agcarm regards the information presented by staff as both misleading and misrepresenting the facts.

Communities rely on the accessible and safe use of public facilities, such as public parks, nature reserves and facilities for recreational activities. The maintenance of these facilities often requires the careful and responsible use of approved and registered chemicals such as glyphosate, to effectively manage weeds.

To bring balance to the misinformation Agcarm wishes to highlight some facts about glyphosate-based herbicides, due to the concerns within your community that the use of glyphosate may have an adverse impact on human health.

#### **2.1.1 Glyphosate safety**

Glyphosate has recorded over 40 years of safe use. Comprehensive toxicological studies repeated over this time have demonstrated the strong safety profile of this widely-used herbicide. Over 160 countries worldwide approve the safe use of glyphosate which is supported by one of the most extensive human health, crop residue and environmental databases ever compiled on a pesticide product.

The overwhelming conclusion of experts worldwide is that glyphosate, when used according to label directions, does not present an unreasonable risk of adverse effects to humans, wildlife or the environment.

### **2.1.2 International Agency for Research on Cancer Classification**

Many of the concerns about glyphosate have resulted from the classification of glyphosate as a probable carcinogen (Category 2A) by the International Agency for Research on Cancer (IARC) early last year.

This classification puts glyphosate in the same category as everyday substances such as coffee and aloe vera. To put this in context, IARC classified processed meat as carcinogenic to humans (Group 1). IARC is one of four World Health Organisation programs to have reviewed glyphosate – the other three World Health Organisation (WHO) programs have concluded glyphosate is not a carcinogen or does not represent a hazard to human health.

It is important to note that the IARC report is not a risk assessment. It refers specifically to the chemical active and does not suggest that the use of glyphosate products according to their registered use, poses any threat.

This [opinion piece](#), (see Attachment - Spraying the Weed) written by Professor of Medicine and IARC panel member, Dr Bernard Stewart, provides important perspective on the use of glyphosate in public spaces.

### **2.1.3 Regulatory Oversight**

Chemical products such as glyphosate are among the most highly regulated in the world and are periodically reviewed. Neither of New Zealand's regulators responsible for glyphosate – the Environmental Protection Authority and the Ministry for Primary Industries - nor Australia's, considers glyphosate to be harmful.

Regulatory and scientific agencies worldwide have reviewed, and continue to review glyphosate, including the European Food Safety Authority (EFSA), the US Environmental Protection Agency and the Canadian Pest Management Regulatory Agency, the United Nations Food and Agricultural Organisation (FAO) among many others.

No regulatory agency in the world considers glyphosate to be a carcinogen.

### **2.1.4 Cost to Council**

A number of Agcarm members are residents on Christchurch City and have expressed concerns at any additional unnecessary spending by the City Council. The focus for the Council must be on rebuilding the city and providing effective infrastructure, along with other core tasks, to enable future growth for Christchurch.

As a general statement that could be directed at any New Zealand City Council, Agcarm submit that spending an additional \$11.5 million over three years to control weeds is regarded as a very poor use of public money, especially when it is not needed due to having a reliable and safe tool, i.e. glyphosate, currently available.

### **2.1.5 Auckland Transport**

In its deliberation on approving the on-going use of glyphosate, Auckland Transport outlined the problems with alternative weed management techniques at its Board meeting on 25 August 2015.

This is summarised as follows:

*What are the practical alternatives to using Glyphosate?*

Alternative methods of vegetation control such as hot water/steam or plant-based herbicides such as BioSafe are used on the network. However, both are more costly and less effective than glyphosate.

The hot water/steam process does not kill the roots of the weeds and as a result more frequent applications are required to prevent re-growth. It is also a more labour intensive operation and is considerably slower than chemical spraying. It requires the use of a significant volume of water and the truck needs to be refilled on a regular basis. There are some types of weed (e.g. nut grass and kikuyu) which the hot water/steam does not kill and these need to be addressed by mechanical means.

Some use of glyphosate is also required to address stubborn and persistent weeds.

The use of hot water/steam for vegetation control purposes in urban areas costs approximately 2-3 times that of glyphosate. It is not practical to use hot water/steam instead of glyphosate in rural areas due to the slow nature of the process and the greater spray area.

There are plant-based herbicides derived from coconut oil or pine oil that are able to be used for vegetation control. However, they are more costly to use than glyphosate as a more frequent spraying cycle is required to kill the root structure of the weeds.

#### Decision to continue to use glyphosate for weed management control

In its deliberations the Auckland transport Board endorsed the continued use of glyphosate to control vegetation in the road corridor, subject to EPA approvals and compliance with NZS 8409:2004 Management of Agrichemicals.

*They concluded that the use of glyphosate is preferred to other methods of vegetation control on the basis of effectiveness, safety and cost. It requires less frequent applications than other methods of vegetation control as it kills the roots of the vegetation as well as the foliage.*

*Glyphosate is approved for use in New Zealand by the EPA who set conditions and standards relating to the use of agrichemicals so as to ensure the safety of the public. AT is complying fully with these conditions and standards and is not aware of any evidence to suggest that the use of glyphosate for the purposes of vegetation control in the road corridor poses any risk to human health.*

### **3. Summary**

Glyphosate remains one of the most widely used chemicals in New Zealand and continues to be used without any reported adverse effects. Accordingly, Agcarm respectfully submits that the Council should make its decisions on the independent verified science and analysis that has been undertaken by regulators for more than thirty years, as opposed to misleading information from sources such as the media and activists.

We urge all parties that wish to know more about glyphosate to look at the conclusions reached by regulatory authorities in developed countries that rigorously consider all available data, published and unpublished, in a comprehensive evaluation.

As a concluding statement Agcarm submits that the Christchurch City Council continues to use glyphosate as per label instructions, as its main tool to manage weeds around the city, thus managing weeds at no additional cost to the public.

Should you have any further questions, please do not hesitate to contact me at Agcarm. For your information I have attached an information sheet on glyphosate that was formulated by the APVMA – the equivalent government agency to our EPA and MPI. See also <http://apvma.gov.au/node/13891>

### **4. About Agcarm**

Agcarm is the industry association for manufacturers and suppliers of crop protection and animal health products. For further information and a full list of members, see [www.agcarm.co.nz](http://www.agcarm.co.nz).

These products protect public health, improve animal welfare and help environmental management.

They:

- Play a pivotal role in growing high yield, sustainable food and fibre products;
- Help supply healthy, nutritional and affordable food;
- Keep New Zealand's agriculture, horticulture and forestry sectors internationally competitive.
- Our members are committed to safety, innovation and product stewardship.

On a final note I am available to meet with you, your staff and/or Councillors for further discussion on the on-going safe use of glyphosate based products within Christchurch at any stage of your deliberations.

Mark Ross  
Chief Executive, Agcarm  
027 442 9965  
[mark.ross@agcarm.co.nz](mailto:mark.ross@agcarm.co.nz)



# Glyphosate

## Safety and use



**The simple rule for safe use of agricultural and veterinary chemicals is to read the label and follow the safety and use instructions.**

### WHAT IS GLYPHOSATE?

Glyphosate is a weed killer which works on a wide variety of leafy weeds. It doesn't distinguish one from another, and it works best after the seed has sprouted.

### ARE GLYPHOSATE PRODUCTS SAFE TO USE?

Yes, glyphosate products which are registered with the APVMA are safe to use, provided they are used as per the label instructions. Registered products have an APVMA or NRA approval number on the label.

Glyphosate is registered for use throughout the world and current regulatory assessment is that it does not pose a risk to humans when used according to the label instructions.

### WHAT ARE 'LABEL INSTRUCTIONS'?

All chemical products have instructions for safety and use on the label. The labels on glyphosate products are there for your safety and provide practical information on how to use each product. Always read the label instructions and use only as directed.

By following the directions you maximize the product's effectiveness and minimise your risk of exposure to the chemical.

### ARE AREAS WHICH HAVE BEEN TREATED WITH GLYPHOSATE SAFE FOR CHILDREN AND ANIMALS?

Always check the label for specific instructions about how to use any chemical products near people, including children, and animals—and follow the instructions.

Products containing glyphosate are safe to use in areas which will be later used by people and animals provided the label instructions are followed. The label instructions will tell you how long people or animals should avoid an area that has been treated—follow these instructions. In most cases, once the product is dry, it is safe to re-enter, but always check the label.

### CAN PRODUCTS CONTAINING GLYPHOSATE STILL BE SOLD IN AUSTRALIA?

Yes, products containing glyphosate are legal to sell in Australia provided they are registered with the APVMA.

### CAN LOCAL COUNCILS AND CONTRACTORS STILL USE GLYPHOSATE PRODUCTS?

Yes, provided they are registered with the APVMA and used according to the label instructions.

## INTERNATIONAL REPORT ABOUT GLYPHOSATE

Last year a report was released by the World Health Organisation's International Agency for Research on Cancer (IARC) which classified glyphosate as 'probably carcinogenic to humans'.

The role of IARC is to identify things that have the ability to cause cancer—they look at both substances and lifestyles. IARC also classify indoor emissions from burning wood and high temperature frying, some shift work, and consumption of red meat in the same category as glyphosate.

When making an assessment of the risk of these substances or lifestyles they do not consider how this risk is managed in actual situations. They did not assess the risk of glyphosate causing cancer when used according to the label instructions in a registered chemical product.

Following this initial assessment, the World Health Organisation's pesticide specialists are doing a comprehensive risk reassessment of glyphosate and their findings will determine whether regulators, such as the APVMA, decide to take any further action in relation to glyphosate.

This group of experts will look at scientific studies and data from all sources including unpublished scientific data, which will then be independently peer-reviewed during the assessment process. The APVMA is a member of this expert scientific group and results are expected to be published in mid 2016.

## THE ROLE OF THE AUSTRALIAN PESTICIDES AND VETERINARY MEDICINES AUTHORITY

The Australian Pesticides and Veterinary Medicines Authority (APVMA) is the Australian Government agency responsible for agricultural and veterinary chemical product registration.

Before a chemical product can be sold or manufactured in Australia, it must first go through scientific assessment by the APVMA to check its safety and whether it works as expected and claimed by the manufacturer. These checks are designed to protect

## WHAT ARE THE NEXT STEPS FOR THE APVMA?

The current scientific assessment by expert scientists at the APVMA has concluded that glyphosate products are safe to use, provided they are used in accordance with the label instructions. Therefore no action to change the use or availability of products containing glyphosate is required at this stage.

The APVMA assessment is based on scientific evidence from a broader range of studies than was used by the IARC in their assessment. It is also consistent with what regulators in other countries, such as Germany and Canada, have done. Both have concluded that current labels for glyphosate products contain appropriate instructions for use to keep those regularly handling glyphosate safe.

However, all findings by international agencies are taken very seriously and, as a member of the World Health Organisation expert group on this matter, the APVMA will be directly involved in assessing consideration of all studies and data.

The current status of regulatory action taken, or proposed, by other regulators around the world will be looked at, as well as any relevant residue studies and any proposed changes to maximum residue limits by other countries.

Following this comprehensive scientific analysis and assessment of risk, the APVMA will decide on whether regulatory action is required for glyphosate products registered for use in Australia. Based on current evidence, no significant changes are expected.

the health and safety of people, animals, plants and the environment. If a product meets very strict requirements it is registered for use in Australia.

The APVMA does not monitor or enforce the correct use of agricultural and veterinary chemicals once they are registered.

The correct use of agricultural and veterinary chemicals is first-and-foremost the user's responsibility. The approved directions for use are on the label of every registered product in Australia and must be followed. Incorrect use of these chemicals in Australia is monitored and enforced collaboratively by Safe Work Australia, and state and territory government authorities.



### MORE INFORMATION



+61 2 6210 4701



[WWW.APVMA.GOV.AU](http://WWW.APVMA.GOV.AU)



[ENQUIRIES@APVMA.GOV.AU](mailto:ENQUIRIES@APVMA.GOV.AU)

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# Opinion Spraying the weed-killer glyphosate in playgrounds won't hurt your children

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18 FEB 2016

BERNARD STEWART

**Concern about council workers spraying the weed-killer glyphosate in children's playgrounds isn't warranted, writes Bernard Stewart.**



Roundup, or the chemical glyphosate, is a very common herbicide used to kill weeds. Mike Mozart/Flickr, CC BY

OPINION: A group of rural Victorians has petitioned their local council to stop using the household weed-killer Roundup (glyphosate).

Their concerns centre around an assessment made last year by the International Agency for Research on Cancer (IARC) – an arm of the World Health Organisation – that the common herbicide was “probably carcinogenic to humans”.

The IARC had found limited evidence of carcinogenicity in humans for non-Hodgkin's lymphoma, mostly in agricultural workers.

Victoria's Mount Alexander Shire Council has resolved to continue using the herbicide. Councillors have, however, adopted a resolution to "seek alternative methods" to reduce "the use of glyphosate and other weed control chemicals".

In Queensland, councils are also investigating whether they should continue using glyphosate for the same reason.

But the concern of the councils and residents isn't warranted. Glyphosate isn't actually dangerous at the levels at which children, or the incidental park passerby, are exposed.

## **'Probably' carcinogenic**

Glyphosate is an organic compound that kills weeds by interfering with the plants' metabolism. In Australia, it's been registered for use for more than 40 years.

But it's also classified as "probably carcinogenic to humans", which means children should stay away from it. Right? Well, no.

The IARC classifies agents that "probably" cause human cancers into Group 2A. This is below Group 1 that hosts agents definitely proven to be carcinogenic to humans. They include tobacco smoke and asbestos.

For Group 1 substances, relevant studies are consistent and indicate cancer causation definitively. But then there's Group 2A with the term "probably". Here some scientific data fall short of proof. For glyphosate and many other chemicals, the relevant studies are not consistent.

The people most heavily exposed to glyphosate are those employed to spray or apply it. These were the people subject to investigations on which IARC based its determination.

Some studies have shown workers using glyphosate have more of a certain type of lymphoma (a cancer of blood-forming cells) than the average population. Other studies, including the biggest such investigation, have not.

Discrepancies are common in epidemiology, which is a study of diseases in populations. Epidemiologists use qualifiers such as "probably" or "possibly" rather than indicating that one or more studies are wrong.

But people often misunderstand what action must be taken when something has been determined as "probably carcinogenic".

## **Risk assessment**

The IARC evaluations identify hazards – that is, whether a certain substance has the biological capability to cause cancer. A hazard identification is only one part of the process to determine whether a chemical is dangerous for use.

If it is capable of causing cancer, or probably is, then a separate level of investigation is needed to determine under what circumstances people are exposed to the chemical, and then, what the likelihood is of it causing the cancer.

This exercise is called a “risk assessment” and is not addressed by IARC.

Risk assessment is the business of statutory authorities. For pesticide use in Australia, the relevant authority is the Australian Pesticides and Veterinary Medicines Authority (APVMA).

The APVMA regulates how glyphosate is to be used safely. Authorities like this take into account factors such as the circumstances of a chemical’s use, the level of exposure and availability of alternatives and protective measures – such as warning labels and protective equipment and clothing.

As already mentioned, glyphosate has only been found to be “probably” carcinogenic, and the studies on which this determination was based were confined to those most exposed to the chemical (those who use it occupationally).

But what about the rest of us, as in, the vast majority of Australians whose job doesn’t involve using glyphosate?

## **Glyphosate and the average child**

Negative health effects of chemicals are mainly determined by the level of exposure to them. The good news is that soil microbes degrade glyphosate in a matter of days. It doesn’t accumulate the way some pesticides do.

The carcinogenicity evidence for glyphosate doesn’t involve incidental exposure for children. Such level of exposure, if measurable at all, would be hundreds of times below that of occupational exposure.

And when it comes to children, it’s not only the level of exposure that must be considered. It’s also the frequency of exposure when compared to those using it occupationally (possibly most days over a period of years, if not decades). So clearly, much less.

Children get to parks by crossing roads. That’s a risk and there are warning signs for it. When they get to a park, they also risk attack by dogs or humans, being struck by lightning or bitten by snakes. Although those risks are real, they don’t (in most cases) merit warning signs.

And then there’s the even lesser risk of cancer from residual glyphosate, which has never been documented. Just forget it.

**Bernard Stewart is a Professor of Medicine at UNSW.**

This opinion piece was first published in *The Conversation*.

Bernard Stewart  
UNSW Medicine