

To: Environmental Protection Authority

Ref: **Glyphosate: Call for Information**
Glyphosate@epa.govt.nz

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1. Introduction

Agcarm submits in response to the Environmental Protection Authority's 'Glyphosate: Call for Information'.

On behalf of our members, **Agcarm submits in favour of glyphosate** as an essential tool for weed control that provides substantial benefits to the New Zealand economy and environment.

2. Discussion

2.1 Why Agcarm supports this option - Facts on Glyphosate

2.1.1 Growing crops more sustainably

As highlighted by the NZIER report for Agcarm '*Benefits of Glyphosate to New Zealand*' (see attachment), glyphosate, the world's most widely-used weed management tool has extensive economic and environmental benefits for farmers and growers within New Zealand.

The benefits of reducing farming's environmental footprint through the use of glyphosate are immense. Not only do glyphosate-based products successfully control a broad spectrum of weeds, they also help farmers grow crops more sustainably. This is because they allow farmers to adopt 'conservation tillage' - benefiting soil health, reducing carbon emissions and conserving water as well as reducing labour and fuel costs.

2.1.2 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.

2.1.3 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) in early 2015.

This classification puts glyphosate in the same category as everyday substances such as coffee, bacon 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 (WHO) programs to have reviewed glyphosate – the other three programs have concluded that 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](#), written by Professor of Medicine and IARC panel member, Dr Bernard Stewart, provides important perspective on the use of glyphosate in public spaces.

2.1.4 Decision of the European Union Assessment Group on Glyphosate 2021

In the EU, all approved pesticide active ingredients undergo routine scientific evaluations, which are conducted by designated Member States and are then peer reviewed by the European Food Safety Authority (EFSA). Glyphosate is currently going through this routine renewal process in the EU.

The designated Member States for the current (2021) glyphosate renewal process – known as the [Assessment Group on Glyphosate \(AGG\)](#) – are France, Hungary, the Netherlands, and Sweden.

The AGG recently [published](#) the main conclusions of their draft Renewal Assessment Report (dRAR) for glyphosate. The AGG's conclusions are based on one of the most extensive and comprehensive scientific dossiers ever compiled for a pesticide product.

There are still several steps remaining in the current EU glyphosate renewal process, including a peer review of the AGG's conclusions by EFSA. [Click here](#) for details about the next steps.

Here are some of the AGG's key findings:

- *“Based on the current assessment, the AGG considers that glyphosate does meet the approval criteria”*
- *“Taking all the evidence into account i.e. animal experiments, epidemiological studies and statistical analyses ... AGG proposes that a classification of glyphosate with regard to carcinogenicity is not justified.”*
- *“The AGG proposes that classification of glyphosate as toxic for reproduction is not justified.”*
- *“The AGG proposes that classification of glyphosate as for germ cell mutagenicity genotoxic or mutagenic is not justified.”*
- *“The AGG proposes that classification for specific target organ toxicity is not justified, neither for single nor repeated exposure (STOTSE and STOT-RE) respectively.”*
- *“No chronic or acute consumer risk is expected from treatment of crops with glyphosate according to the representative uses for the current renewal process”*

- *“Overall, the AGG concludes that glyphosate meets the approval criteria for human health”*

The AGG’s conclusions are consistent with the conclusions of leading health authorities around the world. For more than 40 years, leading health authorities have repeatedly concluded that glyphosate-based products are safe for use according to label instructions and that glyphosate is not carcinogenic.

2.1.5 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.

2.1.6 What lessons can we learn from European glyphosate review

Glyphosate use in Europe has resulted in reassessments, reviews and bans in some countries, causing a backlash by farmers. The controversial herbicide is touted by NZ Professor of Toxicology Ian Shaw as a victim of its own success. It’s successful because it is the most widely used herbicide in the world, it is versatile, and its use can benefit the environment. Conversely, its use has ignited heated debate around the globe, with many having their own slant on its safety - often resulting from conflicting reports and a limited understanding of the science behind its use.

As the renewal of the EU authorisation of glyphosate looms, European farmers fear that a ban on glyphosate would see their crops taken over by deep-rooted weeds and suffer quality losses, alongside a reduction in farm productivity. Environmentalists are concerned about an increase in carbon emissions and a detriment to soil health and erosion.

The prospect of a ban on glyphosate is placing enormous pressure on European farmers. They would face substantial weed pressure - as weeds compete with crops for light, water and nutrients. An even greater pressure exists with climate change and the need for farming practices to become more sustainable. Taking this vital tool away from farmers would lead to more mechanical weeding, more time spent ploughing, and more money spent on fuel alongside the environmental impacts.

Farmers concede that minimal glyphosate use is possible, but an outright ban would be catastrophic because it would entail more tillage to manage weeds - leading to soil degradation. If glyphosate is not available, farmers would need to use three to four other herbicides in its place, leading to more tillage and more resources to manage weeds. Another complication and contradiction to current environmental goals is the contribution that tillage makes to climate change.

Plants absorb carbon dioxide from the atmosphere through photosynthesis and pass carbon to the ground when dead roots and leaves decompose. Tillage releases this carbon from the soil to the atmosphere, contributing to global warming.

Tillage fractures the soil, disrupting soil structure, accelerating surface runoff and soil erosion. It also reduces crop residue, which helps cushion the force of pounding raindrops. Without crop residue, soil particles become more easily dislodged, being moved or 'splashed' away.

Soil degradation starts after rainfall, with run off entering nearby streams, gullies and rivers. The sediment in the water turns it brown and is eventually released into the sea, affecting sea life. Soil degradation from erosion is very expensive for Europeans, costing up to 14 billion euros annually.

According to the Secretary-General of the European Conservation Agriculture Federation at the University of Cordoba, Dr Emilio González, creating 1 cm of soil takes between 100 to 200 years. So conserving soil, he says, is vital for the conservation of the environment.

To rehabilitate soil, a system of conservation agriculture - supported by the Food and Agriculture Organisation and practised in many regions of the world - is necessary. Conservation agriculture improves productivity and ecosystems and protects water and soil. It's based on the three principles of minimum soil disturbance (no-tillage), permanent soil cover or crop cover, and species diversity ie crop rotations.

No-till is a prominent aspect of conservation agriculture due to intensive tillage practices destroying soil structure. Instead of ploughing the soil, farmers can modify and adapt to the conditions with new machinery and by using herbicides to control weeds. The system is working in many European countries, with four million hectares of no-tillage and permanent crops.

It improves soil fertility and optimises outputs and productivity - a win-win for farmers and the environment. Minimum tillage practices increase carbon sequestration in soil and reduce greenhouse gas emissions through decreased use of fossil fuels in field preparation.

Crop rotation and diversification are recommended for achieving agriculture conservation, together with good soil cover to prevent weeds from emerging. Herbicides should then be applied when needed. Monoculture presents more weed problems and entails higher doses of herbicides, which could lead to resistance.

Glyphosate for weed control reduces other inputs and improves soil health and structure. It can tackle tough weeds in one spray after harvesting and, ideally, in combination with cover crops to help manage weeds. Farmers can apply glyphosate with fertiliser, seeds and cover crops in one go - saving time and money. They still need to check for weeds and then apply herbicides for the specific weed issue - at the correct dosage and by following label instructions. The emergence of smart agriculture technology, precision agriculture and drones for applying pesticides, will help farmers to identify and manage weeds in the most efficient way.

Farmers need the best tools and technological solutions to grow enough crops - using fewer natural resources to produce sufficient high-quality food, respect the environment, safeguard consumers and support themselves. Allowing them to use the right tools at the right time for the right crops will assist them to do this.

Helping farmers build a stronger and more resilient agricultural economy, requires an open and transparent dialogue and collaboration between scientists, academia, innovators, politicians, regulators, Non-Governmental Organisations and all those along the food value chain - from farmers to consumers.

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 EPA must continue to 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 and science, published and unpublished, in a comprehensive evaluation.

As a concluding statement Agcarm submits that users of glyphosate must continue to use glyphosate as per label instructions, and following the six rights, i.e. right target, right pesticide, right dose/concentrate, right time, right way and right quality.

4. About Agcarm

Agcarm is the peak New Zealand industry association of companies which manufacture, distribute and sell crop protection and animal health products. Our mission is to protect and enhance the health of crops, animals and the environment - through innovation and responsible use of quality products and services.

For over 70 years, Agcarm has taken a lead role in managing issues of importance to the crop protection and animal medicines industries. This involves engaging with politicians, regulators and stakeholders to ensure that decision-makers take account of these industries' views. It also ensures that the industries align with best practices in the management of pests and diseases.

Our members research the safest and most effective methods to do this. In the crop protection industry, our manufacturers support the use of Integrated Pest Management (using all means available to tackle pests and disease). They research all means of control, including biologicals, to ensure the best and most sustainable result for farmers and growers.

Membership to Agcarm is voluntary, with all applicants requiring Board endorsement before being accepted. Agcarm backs this by ensuring all members comply with a Code of Conduct.

This Code certifies that Agcarm members meet industry standards. Compliance with it is a condition of membership - with companies required to meet many obligations. This includes complying with relevant legislation, participating in environmental stewardship programmes, acting ethically in product promotion and in accordance with the best interests of the crop protection industry.

Protecting the environment is integral to this, with support and participation of the rural recycling programme Agrecovery being compulsory for members. Companies must also ensure that their products meet an appropriate standard, that all people involved with industry products are appropriately trained, and that they are supportive of ensuring environmental sustainability.

In promoting a healthy environment, Agcarm is involved in several other stewardship campaigns, within the crop protection and the animal medicines industries.

Bee health is high on the association's agenda with regular campaigning to protect the wellbeing of New Zealand's bee population and ensuring that products are used responsibly. The 'Bee Responsible' awareness campaigns were produced in conjunction with the Rural Contractors and Agricultural Aviators associations to raise awareness of the importance of protecting bees and providing guidance for doing so.

Preventing resistance management in animals and plants is another priority for the association and its members. As part of this, Agcarm leads and supports programmes that prolong the effectiveness of crop protection and animal health products that are liable to encounter resistance problems and limit losses should resistance appear.

The association's ultimate purpose is to ensure that New Zealand continues to lead the world in producing safe, healthy and sustainable food by using the best and safest technology.

Attachment – NZIER Report – The Benefits of Glyphosate to New Zealand