

Glyphosate Weed Killers

Report by Kevin Anderson, Acting Director Resources

1 Purpose of Report

This report is presented to inform Council of actions following the undernoted motion submitted at the 7 May, 2019 meeting:

“Glyphosate weed killers are being widely used by our Land and Countryside Services at Midlothian Council. This is a herbicide that has a very controversial history so much so it has been banned from use in France due to safety concerns. Recently I have had complaints about our Council spraying Dandelions in the Midlothian area. Dandelions are the first food that bees feed on at the beginning of spring, we as a Council have a responsibility to ensure the continuation of our wildlife and natural habitats. I would therefore urge elected members to support a ban on the use of these chemicals by Midlothian Council”.

Council agreed a moratorium on the use of Glyphosate chemicals meantime, with a decision in relation to the terms of the substantive Motion being delayed for 6 weeks to allow officers to provide a full report for consideration at the next meeting of the Council.

2 Background

The weed killer product we use may vary however the chemical is glyphosate. This is not a poison but a trans-locative herbicide. This is a hormone weed killer. Once this has dried (i.e. about ten minutes after it has been sprayed) the advice is that it is then safe for children and animals. The contractor we employ for streets and pavements also uses a glyphosate with a low hazard rating. In fact the adjuvant (chemical carrier in the weed killer) in the weed killer is the most likely thing to affect dogs and this would only be in the period when it is still wet.

We spray all roads and pavements and grass edges and shrub beds twice a year. Shrub beds may be sprayed more often if required.

We do not use selective weed killers on grass areas at this time to control dandelions in fact our usage is very limited. i.e. to an occasional treatment of a pitch or Bowling Green. Treatments with selective weed killers can certainly effect bees. Dandelions are in fact only sprayed when they are in evidence in shrub beds, pavements, roads or growing in grass edges. Unlike in Agricultural practice we only spray the edges of plots of land.

Midlothian was one of the first Councils to introduce Grassland meadows that encourage wildlife particularly bees, as we worked with the Bumblebee Conservation Trust to provide a good example.

3 The Glyphosate product

Information sourced from the Health & Safety Executive details that Glyphosate is the active substance in many herbicides (weed killers) and is widely used around the world. It is a non-selective, systemic herbicide/weed killer and was first used in the UK in 1976.

Glyphosate is effective in controlling most weed species including perennials and grasses in many situations including amenity, forestry, aquatic and industrial situations. It is used by lots of people from farmers to foresters to gardeners to biologists trying to control invasive exotic plants.

Since it is approved for use in many countries, it has been subject to extensive testing and regulatory assessment in the EU, USA and elsewhere, and by the World Health Organisation

In pure chemical terms glyphosate is an organophosphate. However, it does not affect the nervous system in the way that other organophosphates do, and does not cause the same effects on human health.

Glyphosate is not a neonicotinoid; these types of pesticides are insecticides and are used to treat crops against the actions of certain insects such as pollen beetles.

In addition to the UK process, all pesticides are subject to the regular EU wide initial approval and review programme for active substances. The review programme makes sure that the data supporting their approvals meets modern safety standards.

Glyphosate is currently approved for use as a herbicide (weed killer) in the EU. Approval was granted in 2002, based on a review of mammalian toxicology, ecotoxicology and other data. Further detailed information about the EU regulatory process with respect to Glyphosate can be found on the [Official Journal of the European Union](#) 

The UK Government considers that the regulatory process for authorising plant protection products (PPP) is a robust system. The authorisation process takes into account all scientific knowledge available.

All products which contain glyphosate must be individually authorised in Member States. Applicants for authorisation must show that their products are effective, humane and pose no unacceptable risks to people or the environment. If their products were to pose such risks, they would not be authorised; or if such effects were discovered later, they would be withdrawn.

Neither the EU's assessment of glyphosate as an active substance nor the UK's assessments of applications for authorisation of products which contain it have found the substance unacceptable for use.

The risks associated with the use of pesticides in amenity areas such as parks are specifically considered as part of the authorisation process.

Legally enforceable conditions of use are imposed on the way products can be applied to ensure the public are not exposed to levels of pesticides that would harm health or have unacceptable effects on the environment. It is important that users (or those who cause or permit others to use pesticides) not only comply with the authorised conditions of use but also use products in a responsible and sustainable fashion. The responsible use of pesticides in amenity areas as part of an integrated programme of control can help deliver substantial benefits for society. These include: management of conservation areas, invasive species and flood risks; access to high quality sporting facilities; and safe public spaces (for example, by preventing weed growth on hard surfaces creating trip hazards), industrial sites and transport infrastructure

4 Concerns Raised over bees

A new study published in a reputable journal finds that Monsanto's global weed killer harms honey bees. The paper 'Glyphosate perturbs the gut microbiota of honey bees' reports that bees fed glyphosate at concentrations chosen to mimic environmental levels lose beneficial gut bacteria, which then leaves them vulnerable to deadly infections. Glyphosate, now facing fresh demands for a ban based on this new research.

The suggestion is that this new study is flawed and fails to address whether changes observed in the bees gut microbiome play any part in its health or that glyphosate is responsible for anything at all.

This is 1 study out of 800 studies that have been undertaken.

<https://www.pnas.org/content/115/41/10305>

The science and evidence shows that glyphosate is safe when used correctly. This has been the conclusion reached by regulatory bodies around the world, including the EU's two leading regulatory bodies – the European Food Safety Authority (EFSA) and the European Chemicals Agency (ECHA).

5 Operational issues

The suspension of the use of Glyphosate is causing the Councils Land and Countryside section operational issues as there is not a suitable alternative on the market. According to product label information any herbicide products that are available are far more hazardous to staff, the Public and to Bees.

At present we are unable to fulfil our contractual obligations to SKANSKA, BAM and Melville Housing and this is putting contracts worth a total in excess of £200K at risk.

This has also resulted in some hard standing areas, shrub beds and grass edges remaining untreated during the peak growing season.

We have also been unable to treat Giant Hog weed, Japanese Knot weed and other invasive species. The Giant Hog weed is poisonous and could put members of the public at risk. The plant will also be coming to flower shortly which will lead to a further spread of this highly invasive weed. Japanese Knot weed can be a threat to property so this is also of concern.

An increase in complaints are being received.

6 Report Implications

6.1 Resource

Alternatives to the use of Glyphosate herbicide are limited and there is no suitable alternative. Most other weed killers have been withdrawn from the market, as they are less environmentally friendly.

Alternatives to Glyphosate, which we are aware of, are more likely to be hazardous to wildlife and particularly bees foraging on weeds. They are also less effective and more expensive. Hot water, Foam, steam procedures are all lethal to bees, the chemical alternatives to glyphosate all also have a bee warning on the labelling.

Other alternatives such as brushing, sweeping, hoeing and hand weeding are all far more labour intensive and therefore much more costly.

If the Council was to ban the use of Glyphosate along with a range of additional equipment such as sweepers, flame guns, hot water or foaming machines, a manual based approach would require 20 staff and this would require a budget increase in the region of £360K if the present service levels were maintained.

A submission received by Midlothian Council from the National Farmers Union Scotland has indicated that no large-scale study has found any link between glyphosate, colony collapse disorder or other causes of hive losses and that pollinators like honey bees are crucial to helping farmers produce abundant crops. (Appendix)

6.2 Risk

There is a risk that banning the use of Glyphosate when the weight of scientific evidence and the guidance from National and International bodies suggest the product is safe to use may bring the Council into disrepute.

The Land and Countryside section could potentially lose significant contract work.

The standards of maintenance across Midlothian would deteriorate.

Costs in manual operations would increase with a continued suspension on the use of Glyphosate.

6.3 Single Midlothian Plan and Business Transformation

Themes addressed in this report:

- Community safety
- Adult health, care and housing
- Getting it right for every Midlothian child
- Improving opportunities in Midlothian
- Sustainable growth
- Business transformation and Best Value
- None of the above

6.4 Key Priorities within the Single Midlothian Plan

This report does not impact on the key priorities within the Single Midlothian Plan.

6.5 Impact on Performance and Outcomes

The report does not directly impact on Midlothian Council's performance and outcomes.

3.6 Adopting a Preventative Approach

The report does not directly impact on actions and plans in place to adopt a preventative approach.

6.7 Involving Communities and Other Stakeholders

The report does not directly relate to involving communities.

6.8 Ensuring Equalities

This report does not recommend any change to policy or practice and therefore does not require an Equalities Impact Assessment.

6.9 Supporting Sustainable Development

There are no sustainability issues arising from this report.

6.10 IT Issues

There are no IT issues arising from this report.

7 Summary

Glyphosate is one of the most studied herbicides in the world – and, like all crop protection products, it is subject to rigorous testing and oversight by regulatory authorities. There is an extensive body of research on glyphosate and glyphosate-based herbicides, including more than 800 scientific studies and reviews submitted to U.S., European and other regulators in connection with the registration process, that confirm that glyphosate and our glyphosate-based formulated products can be used safely and are not carcinogenic. The EFSA, the U.S. EPA and other regulatory authorities around the world have comprehensively and routinely reviewed glyphosate and glyphosate-based herbicides for more than 40 years and their conclusions consistently support the safety of glyphosate and glyphosate-based herbicides when used as directed.

Banning the use of Glyphosate when the weight of scientific evidence and the guidance from National and International bodies suggest the product is safe to use may bring the Council into disrepute.

The Land and Countryside section would potentially lose £200k of contract work.

The standards of maintenance within Midlothian would deteriorate. Costs would dramatically increase with a continued suspension on the use of Glyphosate. Additional funding in the region of £360K would be required to cope with alternative measures from a ban on Glyphosate.

Alternative products would have a far more detrimental effect on bees.

5 Recommendations

Council is recommended to;

- i. sanction the continued use of Glyphosate, and that the Council continues to use herbicides with a low hazard rating where possible to safeguard the Public, staff, insects and the environment.
- ii. the Council continues to develop Grassland meadows as a haven for insects.
- iii. that Land and Countryside Service continues to keep the usage of selective weed killers to a minimum, where a clear need can be demonstrated.

6 June 2019

Report Contact:

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Background Papers:

Letter from NFU Scotland

Email from Supplier

key links:

HSE 'Frequently Asked Questions about Glyphosate'

<http://www.hse.gov.uk/pesticides/topics/using-pesticides/general/glyphosate-faqs.htm>

Bayer's 'Let's talk about glyphosate' pages:

<https://www.bayer.com/en/glyphosate-roundup.aspx> and these lead on to more pages and resources

European Food Safety Authority

<https://www.efsa.europa.eu/en/topics/topic/glyphosate>

EFSA on 'Facebook Science'

<https://www.youtube.com/watch?v=ivQ0Ph9OWZU>Glyphosate Task Force www.glyphosate.euAmenity Forum www.amenityforum.co.uk

NFU Scotland

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BY EMAIL ONLY

20 May 2019

Dear Councillors

I'm writing to you in my capacity as President of NFU Scotland representing over 8,500 farming, crofting and arable businesses in Scotland. A number of NFU Scotland members have contacted me expressing concern over Midlothian Council's recent decision to temporarily suspend the use of glyphosate across its services while it investigates concerns about its safety.

Plant protection products, including glyphosate, are among the most tightly regulated chemicals in the world. The European Chemicals Agency (ECHA) has concluded that glyphosate is not a carcinogen and does not cause genetic or reproductive effects.

This conclusion followed an extensive review of the available scientific evidence and supports those made by regulatory bodies around the world. Regulatory bodies have looked at the scientific evidence and concluded that glyphosate poses no risk to people when used correctly. The European Food Safety Authority (EFSA) carried out a review which concluded that glyphosate poses minimal risk to non-target plants and animals when used appropriately. As part of this process, regulatory authorities specifically evaluate the potential for effects on non-target organisms, including bees, and only products that pose no unreasonable risk are approved. Glyphosate is one of the safest plant protection products in the world.

These conclusions were consistent with the outcome of other regulatory evaluations of glyphosate around the world, in countries including the United States, Canada, Australia, New Zealand, Germany and Switzerland - all of which supported the conclusion that glyphosate posed no unacceptable risk when used correctly. This view was also upheld in a joint report from the World Health Organisation and the Food and Agriculture Organisation of the UN.

Glyphosate products have been extensively tested in the laboratory and in the field to evaluate potential toxicity to bees. This extensive testing has found that glyphosate products pose no acute or chronic adverse effects to honey bees. For example, a comprehensive study by Thompson et al (2014) found no adverse effects on adult bee survival or bee brood survival or development in honeybee colonies treated with glyphosate at levels that exceed environmentally realistic exposures.

No large-scale study has found any link between glyphosate, colony collapse disorder or other causes of hive losses. Pollinators like honey bees are crucial to helping farmers produce abundant crops. The good news is that global honey bee populations have actually increased by 65 percent since the early 1960s.

I urge that Midlothian Council should deeply consider scientific evidence when considering any decision on the use of glyphosate and other plant protection products. I welcome any further engagement with you on this matter.

Yours sincerely

A black rectangular redaction box covering the signature of Andrew McCornick.

Andrew McCornick
President, NFU Scotland