PSGR

Physicians & Scientists for Global Responsibility

RECOMMENDATIONS BASED ON THE SCIENTIFIC EVIDENCE OF SAFETY OF URBAN ROADSIDE & PUBLIC AREA SPRAYING, FOR VEGETATION MANAGEMENT IN NEW ZEALAND.

It is recommended that the spraying of herbicides cease in urban environments where it can be reasonably expected that children and vulnerable people will walk and play within two weeks of the spray having occurred.

It is recommended that a precautionary approach be taken, due to an absence of scientific evidence of safety :

⚠ International regulatory agencies: (a) recognise that the key herbicides (used in urban New Zealand) and their metabolites persist for weeks after spraying; and (b) children are at particular risk. Agencies (c) do not conduct risk assessment of herbicidal spraying in urban residential areas, there is no scientific proof of safety.

⚠ Responsible authorities and Ministries (NZ) have failed to dedicate funding to research risk for residents in sprayed urban areas; nor has the EPA NZ have formally risk assessed the main herbicidal substances in use.

1. NEW ZEALAND UNIQUE IN EXTENT OF ROADSIDE SPRAYING

i) Global regulators do not assess exposure to children from urban park, amenity and roadside spraying, as this it not a presumed normal pattern of application.

2. NO RISK ASSESSMENT FOR COMMON HERBICIDES

a) Commonly sprayed herbicides glyphosate & metsulfuron-methyl have not undergone regulatory risk assessment. Market (re-)authorisation is based on industry supplied data.

b) Reference points on the EPA NZ website arise from old, unpublished studies. They do not reflect real world exposures, nor take into account epidemiological evidence on risk.

c) Calls for Information (CfI) do not involve assessment of toxicological & epidemiological scientific evidence. (NB.The EPA NZ does not need to do a CfI to commence risk assessment).

3. EUROPE. GLYPHOSATE/METSULFURON-METHYL NOT APPROVED FOR ROADSIDE/PUBLIC USE.

a) Glyphosate: Crop/orchard/cereals use. 360 g/L top concentrate. Max application (EFSA 2015)

b) Metsulfuron-Methyl: Winter & spring cereals 200 g/L top concentrate. (EFSA 2015).

c) New Zealand has approved 600 g/L concentration. European levels are lower. The higher concentration increases risk for non-compliance in applications, and applicator exposures.

4. DERMAL EXPOSURES DOWNPLAYED, BUT COMMON; & UNINTENDED ACCIDENTS FREQUENT.

a) Monsanto downplayed dermal contact [Pilliod *v* Monsanto,2021]. Removing gloves to use phone, drive vehicle etc. [Connolly et al 2019]. Unintended accidents [Boedeker et al 2020].

5. ABSENT RESEARCH FOR ACUTE & LONG-TERM HARM – PESTICIDES IN PUBLIC PACES

a) Barriers to funding arise from absence of core funding to promote research. Undone research includes: (i) Potential for persistence, bioaccumulation and toxicity in soil or freshwater; (ii) synergistic and additive toxicity of mixtures; (iii) Neurodevelopmental, endocrine and cancer risk from exposures, including to pregnant women, children and vulnerable populations.

b) The Ministry of Health is responsible for monitoring human exposures. The Ministry does not supply core funding for ongoing monitoring of human exposures and health effects. Exposed children or vulnerable residents, for example, cannot access testing facilities.

c) Despite decades of roadside spraying, the Ministry of Environment has taken no action to fund long-term monitoring or assessment of pesticide mixtures, in soil, air or water.

d) Pesticides in freshwater promote antibiotic resistance, yet funding barriers prevent research.

e) WorkSafe does not prioritise nor fund scientific research to assess workplace exposures and their health effect. Focus is on workplace injury rather than disease following exposures.

6. UNCERTAINTY? MUST TAKE PRECAUTIONARY APPROACH INTO ACCOUNT

HSNO ACT (s.4) Purpose of Act:

Protect the environment, and the health and safety of people and communities

HSNO ACT (s.7) All persons shall take into account the need for caution in managing adverse effects where there is scientific and technical uncertainty about those effects.

7. GLYPHOSATE / REGULATORY TIMELINE

a) **2015 IARC.** Probably causes cancer. 'Gold standard.' Comprehensive review of publicly available literature [Pearce 2022, BWB].

b) **2015 EFSA.** Rival European report using non-peer reviewed industry funded studies, not publicly available [Pearce 2022, BWB].

c) **2016 EPA NZ.** Cancer Review. Uses EFSA report to claim no carcinogenicity. (Retired toxicologist with no epidemiological training) [Pearce 2022, BWB].

d) **2017 Greens White Paper**: *Public Health Concern* [Bruning & Browning 2017]

e) **2018 DOUWES et al**. *Carcinogenicity of glyphosate: why is New Zealand's EPA lost in the weeds?* Expert public health scientists call for withdrawal of EPA cancer review. It is widely ignored.

f) **2019 PILLIOD TRIAL**. Transcripts reveal that dermal exposure was understood by Monsanto to be much greater than levels of dermal exposure applied in regulatory monitoring scenarios. https://usrtk.org/wp-content/uploads/bsk-pdf-manager/2019/04/Trial-Transcript-Pilliod-April-11-2019.pdf

g) **2020 GLYPHOSATE LITIGATION.** Payouts to applicants reach US$10 billion.

h) **2020 EPA NZ *RISK ASSESSMENT METHODOLOGY FOR HAZARDOUS SUBSTANCES* RELEASED.**

No guidance is provided for staff in case of uncertainty to apply the precautionary principle. Review of scientific literature not required for risk assessment. Instead, industry applicants select and supply most data. There is no requirement to consider epidemiological science. Substantial focus on modelling rather than real world exposures. Ignores new information such as endocrine disruption. Mixture rules do not allow for synergies from multiple mixtures.

8. EPA NZ HAVE NEVER CONVENED RE: 'SIGNIFICANT NEW INFORMATION' ON GLYPHOSATE

HSNO Act 62 (1) EPA NZ chief executive may at any time request the Authority to decide whether there are grounds for reassessing a hazardous substance where the organism or substance has previously been assessed by the Authority. (Glyphosate may never have been risk assessed).

HSNO Act 62 (2) the Authority may decide that grounds exist to reassess the organism or substance after taking into account— significant new information relating to the effects of the organism or substance has become available.

9. MORE INFORMATION? SEE PSGR'S 2021 RESPONSE TO EPA NZ'S CALL FOR INFORMATION.

LINK TO PSGR REPORT: https://**psgr.org.nz**/component/jdownloads/send/1-root/78-2021gly