Ending the use of glyphosate and building a more sustainable agriculture

Adopted at the EFFAT Executive Committee on 1 June 2021

KEY MESSAGES

- EFFAT calls for the immediate ban on glyphosate as an active substance in herbicide products in the renewal process which is expected to end in 2022. EFFAT's top priority is the protection of farm workers' health and safety, as well as job security. EFFAT's demand for a ban is driven by the increasing evidence of human health toxicity, carcinogenicity and endocrine disruptive properties associated with the use of glyphosate, as well as its harmful effects on biodiversity, the environment and ecosystems.
- EFFAT calls on EFSA, ECHA, the European Commission and Member States to ensure that the protection of agricultural workers' health and safety is considered as one of the main priorities throughout the upcoming scientific evaluation that will guide the renewal process of glyphosate as an active substance. EFSA and ECHA assessments should give priority to published, peer-reviewed and independent studies in their evaluations. Social partners and civil society must be informed and consulted properly.
- A new sustainable agriculture sector is possible, but it needs political will, an effective governance, and a clear roadmap. Alternatives to the use of glyphosate and other harmful chemicals already exist and must be further promoted. These include agronomic practices, mechanical and biological weed control, animal grazing and use of natural herbicides. Glyphosate must not be replaced by other hazardous chemicals. The Commission and Member States should strengthen investments in research and the development of sustainable pest management and non-chemical alternatives.
- Trade Unions must be fully involved in the transition towards a sustainable agricultural model without glyphosate and other harmful pesticides. Social dialogue and collective bargaining should be further strengthened to become an effective tool throughout the transition. Existing jobs must be protected, and new quality jobs created. Investments in skills, training, and adequate social protection for farm workers should be prioritised. Farmers should be supported in adapting their practices.
- The ban on glyphosate in the EU would only be a first step in the direction of building a more sustainable agriculture, but a global vision is needed. This could be achieved in a variety of ways, including through a different approach to free trade agreements, where special attention is focused on the agro-food sector, and the respect of equal environmental and social standards becomes a precondition to engage in negotiations.
- Protective equipment and training must always be provided to workers free of charge and all agricultural workers must be able to obtain official documentation detailing the type of pesticide used during their work activity. Occupational cancers caused by glyphosate-based herbicides should be identified, recognised and compensated.
- The announced revision of the relevant implementing Regulations under the Plant Protection Products framework should lead to fairer and more transparent pesticides renewal processes. The scientific evaluation of pesticides for EU regulatory approval should only be based on published independent studies incorporating peer review. EFSA and ECHA should be granted sufficient resources to increase their capacity and enable the commissioning of independent studies ensuring that the highest scientific standards are upheld, and the health and safety of workers and EU citizens is protected.

What is glyphosate?

Glyphosate is the most widely used herbicide active ingredient in Europe and worldwide. Glyphosate was introduced to the market in 1974 by the US chemical company Monsanto.[1] Today, it is produced by close to 100 manufacturers worldwide, about half of which are located in China. The total sales of glyphosate are estimated at 46,527 tonnes of active ingredient in 2017 across the EU 28+3. Overall, sales of glyphosate represent 33% of total herbicide sales in the EU 28+3.[2]

Glyphosate is a non-selective herbicide that destroys all plants present on the land. It eliminates or minimises the need to use ploughing machines ("zero tillage" farming). Glyphosate is used to suppress plants (weeds) on land and to keep agricultural and horticultural land, as well as transport routes (especially railway tracks), free of vegetation.

Glyphosate is widely used in annual cropping systems, on perennial crops and grasslands. In annual cropping systems, it is mostly used prior to sowing, shortly after sowing of the crop (at the pre-emergence stage) or at the post-harvest stage for controlling weeds and volunteers. Annual cropping systems in which glyphosate is used include a large variety of crops (such as maize, oilseed rape, cereals, legume crops, sugar and fodder beet, etc.). It is also used for the destruction of cover crops and for ensuring the desiccation of certain annual crops at the pre-harvest stage. In perennial crops (such as vineyards, fruit orchards, olives groves etc.), glyphosate is used for controlling weeds within or between crop rows. Finally, glyphosate is used for the destruction of temporary grassland, for local control of perennial weeds in permanent grassland and for grassland renewal.[3]

Concerns over the risks associated with the use of glyphosate.

Glyphosate products are presumed to constitute a potential carcinogenic risk to humans and are said to be responsible for a large number of cancers.

This means that workers across Europe are being regularly exposed to a chemical product that is potentially damaging their health in a number of serious ways. Workers at potential risk include park staff, agricultural workers, gardeners, and forestry workers. It is not only those who are spraying the weedkiller who may be at risk, but also those working around them when or after the herbicide is applied.

Already in 2015, the World Health Organization's International Agency for Research on Cancer (IARC) classified glyphosate as "probably carcinogenic to humans";[4] this is equivalent to a category 1B (presumed) carcinogen in the EU classification system. According to IARC, the cancers most associated with glyphosate exposure were found to be non-Hodgkin lymphoma and other lymphohematopoietic cancers (i.e., Hodgkin lymphoma (HL), multiple myeloma (MM), and leukaemia). The report further concluded that glyphosate exposure caused DNA and chromosomal damage in human cells, as well as genotoxic, hormonal and enzymatic effects in mammals. More recently, a review of existing studies from the University of Washington[5] found that exposure to glyphosate increases the risk of cancer by 41 percent. They noted that a "compelling link" exists between exposure to glyphosate and non-Hodgkin's lymphoma.

[1] Today owned by the German chemical producer Bayer.
[2] Source: ENDURE survey 2019.
[3] The initial use of glyphosate in agriculture was low and limited to pre-harvest spraying to kill weeds. However, since the introduction of genetically engineered glyphosate-tolerant crops to the U.S. market in 1996, the agricultural use of glyphosate-based herbicides has increased 300-fold (from 0.36 million kilograms (kg) in 1974 to 113.4 million in 2014).
[4] https://www.iarc.fr/wp-content/uploads/2018/07/MonographVolume112-1.pdf
[5] Zhang et al, Exposure to glyphosate-based herbicides and risk for non-Hodgkin lymphoma: A meta-analysis and supporting evidence. Mutat Res. 2019 Jul - Sep; 781:186-206. On pesticide use and risk of non-Hodgkin lymphoid malignancies for agricultural workers, also see this 2019 study.

A 13-week pilot study run by the Ramazzini Institute in Bologna in 2019 demonstrates that exposure to glyphosate-based herbicides from prenatal period to adulthood induced endocrine disruptive effects and altered reproductive developmental parameters in male and female rats.[6] A recent study has proven glyphosate acts as an endocrine disruptor in the case of exposure during pregnancy.[7]

Residues of glyphosate and its primary metabolite, aminomethylphosphonic acid (AMPA), are commonly detected in air (Chang et al., 2011), soil (Battaglin et al., 2014), water (Medalie et al. 2020) and food (FDA, 2019; Kolakowski et al., 2020; Ledoux et al., 2020; Zoller et al., 2018). Human glyphosate exposure in the general population is widespread, usually through diet (Fagan et al., 2020), with recent studies reporting increasing glyphosate and AMPA levels in urine samples from adults in the general population (Conrad et al., 2017; Mills et al., 2017).

In 2018, Dewayne Lee Johnson, a school groundskeeper in California, was awarded $289 million by a jury, after having proven that his non-Hodgkin's Lymphoma was caused by a glyphosate-based herbicide. This led to tens of thousands more claims and a $10.9 billion pay-out by Bayer.

Glyphosate is also criticised for contaminating waterways,[8] impacting non-target and beneficial organisms, and persisting in the environment for years. Glyphosate is also blamed of reducing ecosystem biodiversity. Since the development of genetically modified glyphosate-resistant plants, the first glyphosate-resistant weeds[9] are now known.

Current situation regarding the use of glyphosate in the EU

On 27 November 2017, a ban on glyphosate in the EU was rejected and the authorisation of the active substance was extended for 5 years until 15 December 2022. The basis for the extension of the authorisation were the assessments of the European Food Safety Authority (EFSA)[10], which is responsible for pesticide risk assessment, and the European Chemicals Agency (ECHA)[11], which is responsible for hazard assessment of chemicals.

While the assessment of IARC in 2015 was based on strong evidence and publicly accessible studies only, the EFSA and ECHA assessments were based mainly on unpublished industry-sponsored studies with limited and inconclusive evidence for humans. Both assessments were focused on glyphosate alone. However, while IARC considered studies on glyphosate-based products to be relevant, the European institutions considered them of less relevance.

The European institutions also downgraded the evidence from published peer-reviewed literature and considered mechanistic data on genotoxicity irrelevant. Evidence showed that these scientific assessments were widely based on data provided by Monsanto. In fact, a US litigation has brought to light how Monsanto manipulated the scientific debate and misled the public over glyphosate's dangers. The *Monsanto papers*[12] have revealed that Monsanto has known for decades that glyphosate (specifically Roundup) can cause cancer. With a resolution adopted on 24 October 2017, the European Parliament backed a full ban on glyphosate-based herbicides by December 2022.[13] In the meantime, an increasing number of EU countries have considered banning glyphosate. See here for an article providing an overview of the situation.

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[6] Manservisi et al, The Ramazzini Institute 13-week pilot study glyphosate-based herbicides administered at human-equivalent dose to Sprague Dawley rats: effects on development and endocrine system; Environ Health. 2019 Mar 12;18(1):15. doi: 10.1186/s12940-019-0453-y.

[7] See the study "Maternal urinary levels of glyphosate during pregnancy and anogenital distance in newborns in a US multicenter pregnancy cohort", April 2021.

[8] On 15 March 2017, ECHA's Committee for Risk assessment (RAC) declared glyphosate as a substance causing serious eye damage and being toxic to aquatic life with long-lasting effects.

[9] Esp. Palmer amaranth (*Amaranthus palmeri*) and Horseweed (*Conyza sp*.).

[10] EFSA Conclusions on pesticide peer review (2015).

[11] ECHA's opinion.

[12] See more here.

[13] See European Parliament resolution of 24 October 2017 on the draft Commission implementing regulation renewing the approval of the active substance glyphosate.

Current Renewal process

On 10 May 2019, the Commission appointed four Member States (France, Hungary, the Netherlands and Sweden), to act jointly as 'rapporteurs' for the next assessment of glyphosate. This group of Member States is known as the Assessment Group on Glyphosate (AGG).

On 12 December 2019, the Glyphosate Renewal Group (a group of companies seeking the renewal of approval of glyphosate in the EU) sent an application for the renewal of glyphosate post-2022 to the AGG, the other Member States, the European Food Safety Authority (EFSA) and the European Commission. This application formally initiates the renewal process in the EU as provided for by Regulation (EC) No 1107/2009.

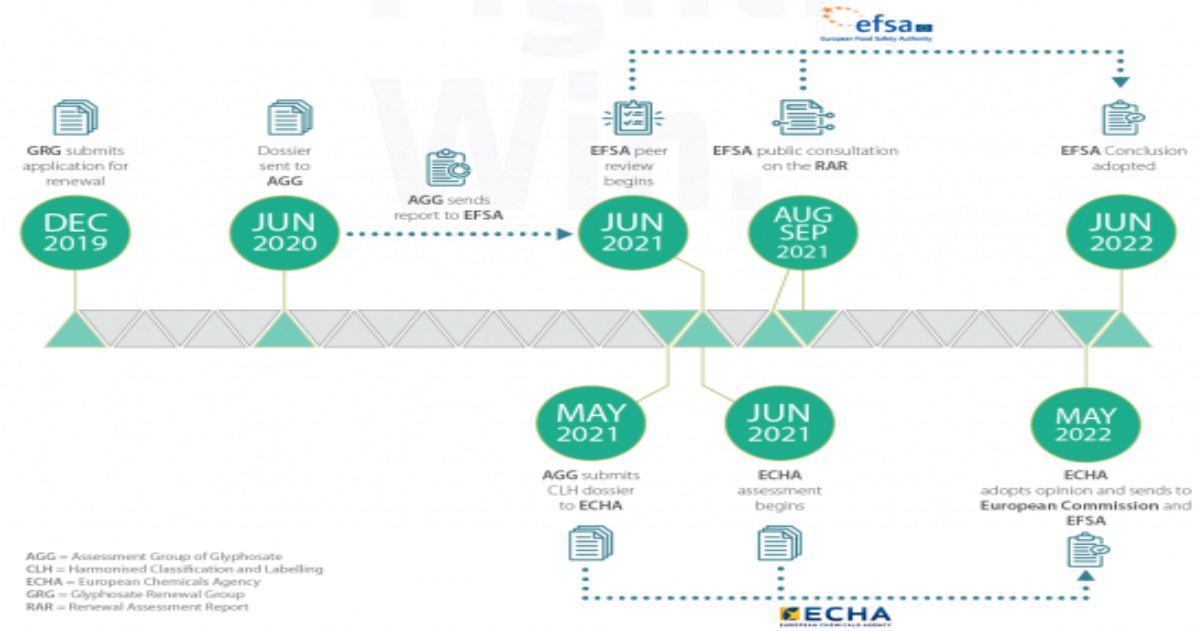
The application is published on EFSA's website. It has been checked by the AGG to ensure it fulfils the requirements of the relevant EU legislation (Commission Implementing Regulation (EU) No 844/2012 on the renewal procedure for active substances).

The supplementary dossiers containing the required set of scientific studies and literature data were submitted by the Glyphosate Renewal Group on 8 June 2020 (before the deadline of 15 June 2020).

The AGG will carry out an admissibility check of the supplementary dossiers followed by an assessment of all available information which, once completed, will be transmitted (deadline June 2021) to EFSA to initiate the peer review process.

In parallel to the EFSA led assessment, ECHA will review the classification and labelling of glyphosate. The proposal for classification and labelling by ECHA will be submitted in 2022 before EFSA's conclusions. ECHA's risk assessment is based on an intrinsic properties classification (hazard assessment), while EFSA's is based on both intrinsic properties and exposure (risk assessment). EFSA's conclusions are scheduled for publication in June 2022. The Commission will then make a decision following intense consultation with Member States.

The chart below sets out the current renewal process.



EFFAT calls for a ban on Glyphosate

EFFAT urges the European Commission and national governments to take the following steps to protect workers, citizens and the environment from the risks of exposure to glyphosate and glyphosate containing products:[14]

1. Glyphosate must be immediately banned in the EU

The protection of farm workers' health and safety and jobs is EFFAT's top priority. As sufficient evidence exists on the risks related to the use of glyphosate for workers, human health and biodiversity, EFFAT calls for the immediate ban of glyphosate as an active substance in herbicide products in the renewal process which is expected to end in 2022. The precautionary principle should guide EFSA and ECHA assessments.

If a transition period is to be set, it should be as short as possible and only apply for limited cases in professional use, whilst for uses in public areas, private gardens, railway tracks, desiccation, and all cases where Integrated Pest management (IPM) can be used, the ban should apply immediately. In any case, there should be no more use of glyphosate in Europe from 2024.

2. EFSA and ECHA upcoming assessments must be transparent and reliable

EFSA, ECHA and the European Commission should carry out their assessment in a transparent and reliable way, free of the influence of the agro-chemical industry.

The protection of agricultural workers' health and safety must be considered as one of the main priorities throughout the scientific evaluation that will guide the process. The use of Personal protective equipment (PPE) should not be given a prominent position in the scientific assessment, as evidence shows that PPE is not always available, and its effectiveness is often over-estimated.[15]

In addition to EFSA and ECHA public consultations, social partners and other interested stakeholders should be given additional time and opportunities to be informed and consulted throughout the process. The assessments should equally rely on published peer reviews and greater consideration should be given to independent studies.

3. The use of non - chemical alternatives should be supported and promoted

Alternatives to the use of glyphosate and other harmful chemicals already exist and must be further promoted. This includes agronomic practices, mechanical and biological weed control, animal grazing and natural herbicides.[16]

Glyphosate must not be replaced by other hazardous chemicals. The Commission and Member States should strengthen investments in research and development of sustainable pest management and non-chemical alternatives.

A new sustainable agriculture with quality job creation is possible, but it needs political will, a clear governance, stronger collective bargaining and a defined roadmap to be implemented.

The Commission should conduct in-depth assessments on the impact on jobs and working conditions of a new sustainable agriculture model without harmful pesticides. Existing jobs must be protected, and quality new jobs must be created. Moreover, adequate resources should be allocated for farmers and farm workers throughout the transition to a more

[14] See more on EFFAT's demands on Glyphosate and pesticide in HesaMag #23 - Spring 2021.

[15] Findings show that recommending the use of PPE is key to the granting of marketing authorisation. Some dangerous products only get marketing authorisation because it is assumed that wearing PPE will considerably limit exposure. They would be banned if it were not for this assumption of protection. However, the actual effectiveness of PPE in working conditions is often over-estimated. See more here.

[16] See this PAN Report for more information on existing alternatives. More examples were presented during the EFFAT-ETUI Seminar that took place on 30 March 2021.

sustainable agriculture sector. Investments in skills, training and good social protection for farm workers should be prioritised.

Protective equipment and training must always be provided to workers free of charge and all agricultural workers must be able to obtain official documentation detailing the type of pesticide used during their work activity.

4. A global approach towards a more sustainable agriculture is needed

EFFAT supports the ambitious environmental objectives of the Green Deal and the Farm to Fork strategy, including the 50% reduction target for use and risk of pesticides by 2030.[17]

However, acting solely at a European level will not be sufficient to protect consumers' health, safeguard our ecosystems and biodiversity and prevent soil erosion. On the contrary, it may affect jobs and the competitiveness of the EU agriculture sector. A vision towards a more sustainable agriculture without glyphosate and other hazardous chemical must be pursued at a global level. The EU should be at the forefront of this radical change, since the decisions taken in the EU will also have a substantial impact in other countries.[18] It is not acceptable that harmful pesticides already banned in the EU keep being produced and exported by European agro-chemical companies. Foodstuff produced using pesticides banned in Europe should not enter the EU market.

If the EU were to adopt a different approach to Free Trade Agreements (FTAs), this could contribute to building a more sustainable vision for the agriculture sector. Agriculture and food always require specific attention in the negotiation of FTAs, as the economic, social and environmental sustainability of these sectors is fragile and easily disrupted. Moreover, the respect of equal environmental and social standards must be a precondition to engage in negotiations.

5. The upcoming revision of the Plant Protection Products framework announced in the Farm to Fork Strategy must deliver more transparent pesticides renewal processes

Evidence has shown that the ECHA and EFSA assessments are not transparent and reliable. The upcoming revision of the relevant implementing Regulations under the Plant Protection Products framework as announced in the Farm to Fork Commission Communication, should lead to fairer and more transparent pesticides renewal processes. The scientific evaluation of pesticides for EU regulatory approval should give priority to published, peer-reviewed and independent studies. The scientific evaluation of pesticides for EU regulatory approval should only be based on published, peer reviewed and independent studies. Any study considered should be publicly available for scientific scrutiny.

Social partners should be fully involved throughout the process.

Moreover, EFSA and ECHA should be granted sufficient resources in order to increase their capacity, to enable the commissioning of independent scientific studies and to further ensure that the highest scientific standards are upheld, and the health and safety of EU citizens is protected.

6. Occupational cancers caused by glyphosate-based herbicides should be recognized and compensated in all EU countries

Workers with high exposure to glyphosate-based herbicides have a higher risk of developing non-Hodgkin Lymphoma. Exposed workers with this type of cancer should be entitled to have their disease recognized as occupational and must be entitled to be adequately compensated in all EU member States.

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[17] The upcoming revision of the sustainable use of Pesticide Directive must be the occasion to convert the objective to cut pesticide use and to increase the proportion of organic land in Europe into binding measures.

[18] See African plantation and farmworker unions urge EU to halt glyphosate reauthorization (2016)