Procedure and outcome of the draft Renewal Assessment Report on glyphosate, June 2021

Intro

This document outlines the procedure followed by the Assessment Group on Glyphosate (AGG) for the assessment of the renewal of glyphosate as an active substance in plant protection products. It is intended to provide an overview of the main findings as presented in the draft Renewal Assessment Report (dRAR) and to outline the follow-up procedure.

Short overview

The assessment of the application for EU renewal of glyphosate was performed by the AGG, consisting of the competent authorities for the assessment of active ingredients of France, Hungary, the Netherlands and Sweden.

The assessment was based on a dossier submitted by the applicants, the Glyphosate Renewal Group (GRG). This dossier contained relevant studies performed by the applicants as well as from public literature. The assessment was performed based on guidance documents applicable at the date of submission of the dossier[1] and in the light of current scientific and technical knowledge[2].

On June 15th 2021, a draft Renewal Assessment Report (dRAR) and a CLH dossier were sent to the European Food Safety Authority (EFSA) and the European Chemical Agency (ECHA) who will publish the reports and organise public consultations in line with their respective regulatory frameworks. Thereafter EFSA and ECHA's Committee for Risk Assessment (RAC) will formulate their conclusion and opinion, respectively. Finally, the European Commission will formulate a proposal for decision regarding renewal of the approval and, if relevant, the classification.

1) Renewal process, its legal base and AGG

The approval of active substances used in plant protection products is limited in time and the EU regulation on pesticides[3] requires that the approval of all active substances is periodically reviewed. This renewal process[4] starts when the applicant submits an application for renewal and subsequently submits a comprehensive dossier with technical/scientific data. A scientific assessment of the data by a rapporteur Member State follows. This draft assessment is then open for public consultation and a peer-review process managed by EFSA is organised. Given the timeline for the expiry date of glyphosate of 15th December 2022, the renewal process for glyphosate started with the submission of an application request on 15th December 2019 followed by the submission of the comprehensive dossier on June 8th 2020. On June 15th 2021, the AGG submitted the dRAR to EFSA.

In parallel, the classification of an active substance also needs to be re-assessed and all relevant data were compared with the criteria set out in the EU regulation for Classification, Labelling and Packaging

[1] In accordance with Article 13(1) of Implementing Regulation (EU) N° 844/2012

[2] Article 11(3) of Implementing Regulation (EU) N° 844/2012

[3] Regulation (EU) N° 1107/2009 and Regulation (EU) N° 844/2012

[4] Please note that the relevant Regulation has been amended for dossiers submitted as of 27 March 2021. For active substances whose approval period ends after 27 March 2024 the procedures are laid down in Implementing Regulation (EU) 2020/1740. But since the current approval of glyphosate expires before that (15 December 2022), the procedures laid down in Implementing Regulation (EU) N° 844/2012 apply for this substance.

of Chemicals and mixtures (CLP)[5]. For glyphosate, the AGG has submitted a proposal for harmonised classification and labelling (CLH-dossier) on June 15th 2021 to ECHA. The CLH report and its public annexes will be subject to public consultation and subsequent discussion and adoption of an opinion by the ECHA Committee for Risk Assessment (RAC).

The assessment was performed in conformity with relevant data requirements and guidance documents which were in force on the date of dossier submission by the applicant to the AGG (June 8th 2020)[6].

The AGG

On the 10th of May 2019, four Member States (France, Hungary, the Netherlands and Sweden) were appointed by the European Commission to act jointly as rapporteurs for the assessment of the application and comprehensive dossier for renewal of the approval for glyphosate[7]. The competent authorities for the evaluation of active substances of the four Member States, ANSES (France), Nebih (Hungary), Ctgb (Netherlands), and KEMI (Sweden), formed the AGG. The AGG conducted the scientific evaluation of the dossier submitted by the applicant for the renewal of approval of glyphosate.

The four AGG-members appointed a steering committee (SC) with the power to take decisions on all relevant issues and a secretariat to assist the steering committee. All external communication was delegated to the chair of the SC. For internal communication the Member States each appointed a project manager. All sections of the draft Renewal Assessment Report (dRAR) have been reviewed and commented by experts from each of the AGG-members.

The final conclusions as set out in the draft Renewal Assessment Report were jointly endorsed by all four members of the AGG.

2) Pre-Submission procedure

Prior to submitting a dossier for the renewal of approval of an active substance, an applicant may request pre-submission meeting(s) with the Rapporteur Member State(s) to discuss procedural and scientific topics.

All applicants were represented by the GRG, a consortium of eight companies applying for the renewal of the approval in the EU for the active substance glyphosate in 2022. The AGG has held eight pre-submission meetings in 2019 and 2020 with the GRG.

Upon invitation EFSA also attended some of the pre-submission meetings as an observer.

The presentations that have been discussed during the meetings as well as the notes from the meetings are published on the AGG website[8].

3) Application and dossier submission by the applicant

[5] Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures

[6] https://ec.europa.eu/food/plants/pesticides/approval-active-substances/guidelines-active-substances-and-plant-protection_en#procedures

[7] Commission Implementing Regulation (EU) 2019/724 of 10 May 2019

[8] https://ec.europa.eu/food/plant/pesticides/glyphosate/assessment-group_en

The renewal process of glyphosate was in conformity with standard procedures[9]. An application for renewal of the approval for glyphosate was submitted before the deadline of 15th December 2019 by the GRG. Since this application did not completely meet the requirements, an amended application was requested and this was received by the AGG and accepted on January 31st 2020 as foreseen in Article 3(2)of Regulation (EC) no 844/2012. The application contained information on new and ongoing studies.

A comprehensive dossier with technical/scientific data for renewal of the approval for glyphosate was submitted before the deadline of 15th June 2020 by the GRG. Since this dossier did not completely meet the criteria for admissibility, an amended dossier was requested and was received on 23rd of July, which was then accepted by the AGG, as foreseen in Article 8(2) of Regulation (EC) No 844/2012.

In the admissibility letter, the AGG requested some further clarifications by the GRG and set appropriate deadlines for the requested additional information. In addition, the AGG took note that some final reports or studies were not yet available, and these were subsequently requested by the AGG and provided by the GRG as foreseen in Article 11(5) of Regulation 844/2021.

The dossier consists of almost all tests and studies from previous EU approval processes as well as new studies and a recent literature review of public literature. The high interest in glyphosate resulted in a considerable amount of potentially relevant scientific literature. The literature search, which covered a timeframe of ten years before submission of the dossier resulted in 7.000 published scientific publications (see also para 4.c).

For an overview of the pre-submission procedure, minutes of the meetings and documents sent to the GRG, please see the AGG-website.

4) General remarks on the process, the dossier and the dRAR

a) Risk assessment and risk management

In the EU, risk assessment and risk management are separated. The risk assessment for active substances is carried out by the competent authorities of the Member States and by EFSA. This process is formalised and based on scientific methods as laid down in the applicable guidance documents and scientific opinions of EFSA. The dRAR and CLH-report for glyphosate prepared jointly by the AGG are starting points for an EU-wide consultation and peer review procedure managed by EFSA and ECHA, respectively.

The European Commission as risk manager will, after receiving the peer review conclusions of EFSA and the opinion of the ECHA Risk Assessment Committee, prepare a draft renewal report and a draft Commission Implementation Regulation concerning the renewal of approval and present this to the Standing Committee on Plants, Animals, Food and Feed (SCoPAFF) constituted by all Member States. The GRG will be consulted on the draft renewal report. Discussions will then take place in the SCoPAFF between the Commission and risk managers of all Member States prior to a vote by the Member States on the Commission's proposal.

b) Relationship with earlier glyphosate dossiers

In the present renewal dossier most items from the first EU approval dossier and from the renewal dossier of 2012 are included. Public literature older than ten years was included when found reliable

[9] As laid down in Regulation (EC) N° 1107/2009a and Implementing Regulation (EU) N° 844/2012.

and relevant in earlier assessments, in agreement with the current guidance on performing literature searches. AGG requested the GRG to deliver a new assessment based on current guidelines. The AGG performed a new assessment on the complete dossier based on the current scientific and technical knowledge and considering the guidance applicable at the time of the submission of the dossier.

c) Use of studies and public literature

The studies required in a dossier are laid down in European legislation and in guidance documents and technical guidelines. All studies must be carried out according to Good Laboratory Practice (GLP) in approved laboratories. These laboratories are under supervision of national authorities.

Apart from these studies, public scientific literature is also taken into account in the assessment. All public scientific literature over ten years before submission of the dossier must be searched in a formalised and transparent way[10]. The literature search strategy is described in the draft renewal assessment report. The literature is sorted by relevance and then, if relevant, summarised and assessed. Non-relevant literature is for instance literature on socio-economic effects of using (or not) plant protection products containing glyphosate. Such effects however 8are not among the approval criteria in Regulation (EC) No 1107/2009[11]. For all relevant literature, the reliability was assessed. For instance, toxicological studies where the administered dose or the formulation used were not (properly) reported were generally not considered (completely) reliable. It must be noted that studies reported in public literature are often not carried out according to GLP.

d) Difference between assessment by the GRG and by the AGG

The GRG provided the AGG with a dossier containing relevant information on glyphosate (and its metabolites), comprising of guideline studies and public literature. This information was assessed by the GRG in a format as laid down in the guidance documents[12]. The AGG assessed all the information. In the dRAR a clear difference is made between the assessment of the GRG and of the AGG. The assessment of the AGG is marked in the format according to the EFSA Administrative guidance document[13].

e) Data gaps

In the assessment of the dossier, data gaps were identified. EFSA may request additional data after the public consultation on the dRAR. Once these data have been submitted by the GRG, the AGG will revise the dRAR. By contrast, ECHA has no process for actively requesting further data as regards the proposed harmonised classification. Therefore, any additional data that is of relevance for the classification must be submitted directly to ECHA during the public consultation.

f) Authorisation of plant protection products containing glyphosate

Member States can only authorise PPPs that contain an active substance which is approved in the EU. If the approval of an active substance is renewed, all authorisations of plant protection products

[10] EFSA GD 2092/2011 ((EFSA, 2011. Submission of scientific peer-reviewed open literature for the approval of pesticide active substances under Regulation (EC) No 1107/2009. EFSA Journal 2011;9(2):2092, 49 pp. doi:10.2903/j.efsa.2011.2092)

[11] See also paragraph 5.h .

[12] https://ec.europa.eu/food/plants/pesticides/approval-active-substances/guidelines-active-substances-and-plant-protection_en

[13] Administrative guidance on submission of dossiers and assessment reports for the peer-review of pesticide active substances (https://www.efsa.europa.eu/en/applications/pesticides/regulationsandguidance)

(PPP's) containing the active substance must be reviewed as well. The authorisation of PPP's is the competency of the individual Member States. Member States must evaluate the risks of PPPs, depending on their composition, method of application and use and can decide on precautionary measures such as the use of personal protective equipment or specific measures related to vulnerable areas or landscapes (for example buffer zones where the product cannot be sprayed). When specific risk mitigation measures are laid down in the approval decision of an active substance, such measures must be implemented in the authorisations granted by Member States for the PPPs.

5) Main findings

The dRAR consists of 11.000 pages, which is substantial larger than an average dRAR. In comparison, a typical assessment report for an active substance in the EU is less than 5.000 pages.

The application must identify at least one representative use on a widely grown crop in each of the three regulatory zones (North, Central, South[14]).
In this renewal dossier, the representative GAP covers uses as post-harvest, pre-sowing, pre-planting and pre-emergence in vegetables and sugar beet; post-emergence of weeds in orchards, vines and vegetables, railway tracks against emerged annual, biennial and perennial weeds, as well as cereal volunteers (for post-harvest, pre-sowing, pre-planting). Additionally, uses as spot treatment against invasive species in agricultural and non-agricultural areas and against couch grass in vegetables and sugar beet have been applied for.

Based on the available information and taken into account the representative uses the AGG drew the following conclusions:

a) Composition, physical and chemical aspects including analytical methods

The AGG has proposed a revised reference specification for glyphosate since two new relevant impurities have been identified. For one source of production of glyphosate all necessary data are available and the batches used in the studies are comparable. However, data gaps were identified for several alternative sources of the substance.

For the validation of analytical methods for monitoring purposes sufficient studies were presented.

For risk assessment, most of the analytical methods used in studies or tests are validated or fit for purpose.

b) Human health

Active substances can pose hazards for human health. For all points of the data requirements related to human health sufficient information was available and based on this information toxicological reference values for risk assessment and for a proposal for classification is presented.

Based on the available information, the following conclusions could be drawn:

- Germ cell mutagenicity: on basis of the available information and the considerations in the Guidance on the Application of the CLP criteria, the AGG does not consider the criteria for classification with respect to germ cell mutagenicity in Regulation (EC) No 1272/2008 to be

[14] Article 8(1)(a) of Regulation (EC) N° 1107/2009.

fulfilled. The AGG proposes that classification of glyphosate as for germ cell mutagenicity genotoxic or mutagenic is not justified.

- Carcinogenicity: taking all the evidence into account i.e. animal experiments, epidemiological studies and statistical analyses, and based on the considerations in the Guidance on the Application of the CLP criteria, the AGG does not consider the criteria for classification with respect to carcinogenicity in Regulation (EC) No 1272/2008 and the dedicated guidance document[15] to be fulfilled. The AGG proposes that a classification of glyphosate with regard to carcinogenicity is not justified.
- Reproductive toxicity: on basis of the available information and the considerations in the Guidance on the Application of the CLP criteria, the AGG does not consider the criteria for classification with respect to reproductive toxicity in Regulation (EC) No 1272/2008 to be fulfilled. The AGG proposes that classification of glyphosate as toxic for reproduction is not justified.
- Based on the available information and the considerations in the Guidance on the Application of the CLP Criteria, the AGG does not consider the criteria for classification with respect to specific target organ toxicity (STOT) to be fulfilled. The AGG proposes that classification for specific target organ toxicity is not justified, neither for single nor repeated exposure (STOT-SE and STOT-RE) respectively.
- Based on the available toxicological information, the AGG proposes that the current classification as "causes serious eye damage" (H318) should be retained.

The AGG proposes revised toxicological reference values for glyphosate, to be used in risk assessment for consumers and for operators, workers, bystanders and residents. Two of the revised reference values are more conservative (lower) than the values established in the previous renewal process for glyphosate. The proposed revised reference values result from the re-assessment of existing studies using a more conservative approach.
For all proposed uses, a safe use could be demonstrated for operators and workers (both without personal protective equipment) and for bystanders. For residents, a safe use was demonstrated for all proposed uses, except for one scenario in which due to a high predicted spray drift no safe use could be demonstrated.

Overall, the AGG concludes that glyphosate meets the approval criteria for human health as laid down in Regulation (EC) No 1107/2009 and its amendments for the approval as an active substance to be used in plant protection products.

c) Consumer safety

Certain uses of glyphosate could result in residues of glyphosate and its metabolites on or in plants and animal products meant for feed and food. Therefore, the amount of residues is assessed based on the (limited) proposed uses and on good agricultural practice. This results in a Maximum Residue Level (MRL)[16]. MRLs are set with a view to protecting vulnerable groups, by taking into account toxicological safety thresholds as calculated in the toxicological assessment (para 5.b). In the current renewal dossier, an application to set an MRL in honey is included.

[15] Guidance on the Application of the CLP Criteria (ECHA, 2017) See: https://echa.europa.eu/guidance-documents/guidance-on-clp

[16] 'maximum residue level' (MRL) means the upper legal level of a concentration for a pesticide residue in or on food or feed set in accordance with Reg (EU) n° 396/2005, based on good agricultural practice and the lowest consumer exposure necessary to protect vulnerable consumers..

No chronic or acute consumer risk is expected from treatment of crops with glyphosate according to the representative uses for the current renewal process. This exposure assessment includes possible residues on crops after glyphosate has been applied, and possible residues in animal food commodities when livestock has been exposed to glyphosate and its metabolites. Full acceptability of the residue data needs to be confirmed by additional information on extraction efficiency of the analytical methods. Furthermore, the AGG proposes that additional rotational crop field trials are required to assess the magnitude of residues in succeeding crops (i.e. planted after the harvest of the plants treated first), which is relevant for both food as well as feed commodities. Therefore, the consumer risk assessment is currently only considered as finalised for the use of glyphosate in orchards, for which crop rotation is not relevant. Before other uses can be accepted for product authorisations on food or feed, applicants have to provide further data.

d) Endocrine disruption

Based on an assessment of the available data on glyphosate according to the EFSA/ECHA Guidance on assessment of endocrine disruption, the AGG proposes that the ED criteria as laid down in Regulation (EC) No 1107/2009 as amended by Regulation (EU) No 2018/605 are not met.

e) Fate and behaviour in the environment

For all but one requirement relative to the fate and behaviour in the environment, sufficient studies were presented to address the fate and distribution of glyphosate and its metabolites in the environmental compartments (soil, water, sediment and air). However, several points still need to be clarified by the applicant during the peer review process. Reliable field dissipation/degradation rates could not be determined for the metabolite AMPA and this is identified as a data gap.

Nevertheless, the information available is suitable to determine predicted estimated concentrations in all relevant compartments for all representative uses. Most of the endpoints determined in the previous assessments have been revised as a result of the re-assessment. The applicant is requested to provide updated concentrations for groundwater, surface water and sediment compartments, based on updated endpoints.

The results from public monitoring programs were also taken into account.

f) Ecotoxicology

Sufficient studies were submitted to assess the toxicity and the risk of glyphosate, its main metabolite and the representative product to non-target species. Data from public literature have been provided and taken into account.

In view of the information available, the AGG proposes that the risk assessment for aquatic organisms needs to be revised to take into account the updated concentrations for surface water and sediment and additional toxicity data (see above).

Based on the available ecotoxicological information glyphosate the current classification “Toxic to aquatic life with long lasting effects” (H411) should be retained.

The information provided on birds, bees, non-target arthropods, soil organisms and non-target plants is considered sufficient to fulfil the data requirements and assess the risk related to the intended uses. Some points of clarification have been identified, to be delivered during the commenting period, to further justify the reliability of some studies.

Active substances can only be approved if, among others, plant protection products containing them have no unacceptable impacts on biodiversity and the ecosystem (Article 4(3)(e)(iii) of Regulation 1107/2009. There is currently no validated tool nor a harmonised methodology for evaluating biodiversity in the context of approval of active substances. In this case an attempt was made by the GRG to address the impact of use of glyphosate on biodiversity via indirect effects and trophic interaction, taking into account the methodology of definition of Specific Protection Goals[17]. Such protection goals are to be set by the risk managers. The AGG proposes that impacts on biodiversity are further considered during the peer review process, and if relevant, by risk managers. When plant protection products are assessed by the national competent authorities, specific mitigating measures can be laid down to mitigate the effect of glyphosate on biodiversity.

g) Efficacy

The GRG provided the necessary data to show that glyphosate is efficacious.

h) Other

The GRG also submitted a relatively large data set on socio economic consequences of a potential ban of glyphosate and comparison with chemical/non-chemical alternatives. The studies are not evaluated in the dRAR and are presented very briefly only. The reason is that an assessment of the value of active substances, socio-economic analyses or comparisons with chemical/non-chemical alternatives is not part of the assessment of applications for (renewal of) approval of active substances under Regulation (EC) No 1107/2009. It is acknowledged in the dRAR that the reports may be of interest in a wider context.

Overall conclusion of the assessment by the AGG

The AGG has compared the outcome of the evaluation with the criteria for approval, as provided in Regulation (EC) No 1107/2009.

Based on the current assessment, the AGG considers that glyphosate does meet the approval criteria set in Regulation (EC) N° 1107/2009.

The AGG considers that authorisation in at least one Member State is expected to be possible for at least one plant protection product containing the active substance for at least one of the representative uses.
The AGG has also compared the outcome of the evaluation with the criteria for classification as provided in Regulation (EC) No 1272/2008. Based on this comparison, AGG proposes that glyphosate fulfils the criteria for classification for Eye Damage Category 1 (H318) “causes serious eye damage” and Aquatic Chronic 2 (H411) “toxic to aquatic life with long lasting effects”. This is the same as the present harmonised classification for glyphosate and no new classification is proposed.

6) Follow up procedure

The dRAR and the CLH-proposal were delivered to EFSA and ECHA respectively on 15 June 2021. The responsibility for the further procedures for renewal and classification lay with these agencies. They

[17] Guidance to develop specific protection goals options for environmental risk assessment at EFSA, in relation to biodiversity and ecosystem services;
https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2016.4499

will perform an "accordance and completeness check" and, if necessary, the AGG will amend the dRAR and CLH-report.

After this step is finalised, EFSA and ECHA will publish the draft reports on their respective websites[18,19]. After publication of the reports a public call for comments will be launched by EFSA and ECHA. All interested parties are invited to comment on the draft reports. The commenting round is foreseen to be launched in September2021. After closure of the commenting period, the AGG will be asked by EFSA and ECHA to address the comments received. After that step, EFSA can request additional data from the applicant (see para 4.e above).

Thereafter EFSA will organise a process of peer review among the experts of European Member States' competent authorities. EFSA will then prepare a Conclusion, taking into account also the Opinion to be adopted by the ECHA Risk Assessment Committee (RAC) on classification. The EFSA Conclusion, foreseen for the second half of 2022, will be analysed by the European Commission which, based on the Conclusion, the dRAR and other factors legitimate to the matter, will prepare the discussion in the Standing Committee on Plants, Animals, Food and Feed (SCoPAFF) in which risk managers of all Member States are represented[20].

For the CLH-process, the Opinion of the Committee for Risk Assessment (RAC) is foreseen to be adopted in March 2022, but this could be later in June if new data become available that the RAC is required to review and to include in the assessment. EFSA will take this into account before finalising its conclusion. In case the RAC Opinion proposes any amendment of the current harmonised classification, the European Commission will prepare a delegated act, assisted by the expert group CARACAL (the Competent Authorities for the REACH and CLP Regulations), following which the Commission will submit the delegated act to the Council and the European Parliament before adoption.

[18] https://www.efsa.europa.eu/en

[19] Further details on the ECHA CLH process are available from https://echa.europa.eu/regulations/clp/harmonised-classification-and-labelling

[20] https://ec.europa.eu/food/horizontal-topics/committees/paff-committees/phytopharmaceuticals_en