EU drinking water legislation

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European Glyphosate Environmental Information Source

Important Notes to users:
This document is part of a toolbox which provides independent information on the sustainable use of glyphosate. It cannot however be definitive and users must ensure that they assess local factors and particularly take account of any national or regional legislative requirements. At the end of the document reference sources used in its preparation and links to other relevant documents are provided.

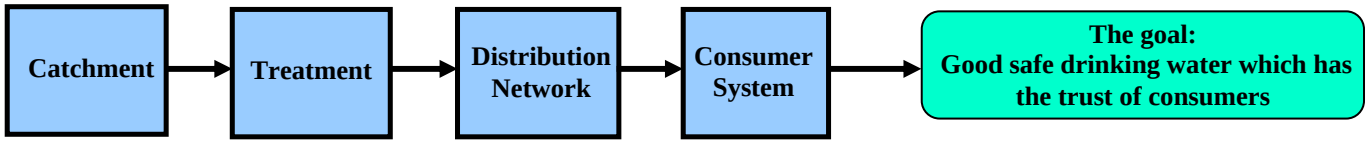
Summary
Drinking water legislation in Europe is derived from the EU Drinking Water Directive which sets minimum standards for various substances in water. For any individual pesticide the maximum allowed at any time is 0.1 µg/l (parts per billion) and the total for all pesticides must not exceed 0.5 µg/l. These standards are based on a highly precautionary approach with values close to zero and are not related to actual toxicity of the pesticides. The directive is currently under review but as part of the consultation process the European Commission has proposed that any future update will incorporate a Water Safety Plan (WSP) approach as recommended by the World Health Organisation. A WSP is a new preventative approach which seeks to document, assess and mitigate all risks from catchment to consumer.

Detailed information

EU drinking water standards
Drinking water standards in Europe are derived from the Drinking Water Directive 98/83/EC. EU Member States must transpose these standards as minimum requirements into their national legislation but can if they so choose adopt even tighter local standards. The EU drinking water standards for pesticides are based on maximum values which should not be exceeded at any time: these are 0.1 µg l^{-1} for any individual pesticides and 0.5 µg l^{-1} for total pesticides. These standards also apply to their relevant metabolites. The standards are not based on toxicological considerations, but represent a precautionary surrogate for 'zero'. Thus in the vast majority of cases the standard is considerably lower than the level at which any health impact might occur. For example the World Health Organisation has identified a health based guideline value of 0.9mg/l for AMPA alone or in combination with glyphosate.

The EU drinking water directive is currently under review, although a draft text has not yet been published. However as part of the consultation process the European Commission has proposed that any future directive will incorporate a Water Safety Plan approach as recommended by the World Health Organisation (see below).

Water Safety Plan (WSP)
Traditionally, control of drinking water quality has largely been based on testing water samples for levels of chemical and biological contaminants. Relying on this approach means that problems are detected long after water is consumed - a remedial rather than preventive approach. The WSP approach now recommended by WHO for Governments, regulatory authorities and water suppliers is to manage drinking water quality in a much more holistic and systematic fashion which assesses and mitigates all risks from catchment to consumer. The WSP concept has been strongly endorsed by the International Water Association through the Bonn Charter for Safe Drinking Water and is being adopted by countries across the world. In some countries the use of WSPs is already a regulatory requirement and it is likely that the WSP approach will be a requirement of any new EU drinking water directive thus complementing the use of numeric standards.



Essentially a WSP is a documented plan that:

1. Assesses the risks of water contamination from catchment to consumer
2. Identifies the most effective control points
3. Establishes management systems to mitigate those risks under both normal and abnormal situations
4. Verifies the effectiveness of those controls

For many water operators such risk based management systems are not new but the benefits of a WSP is that it provides a much more structured framework within which gaps in procedures can be identified and corrective procedures prioritised. For others, where such approaches are not so well established, the setting up of a WSP will be the first critical step in improved water quality management.

The World Health Organisation emphasises that protection of raw water resources provides the first barrier in protection of drinking-water quality:

Where catchment management is beyond the jurisdiction of the drinking-water supplier, the planning and implementation of control measures will require coordination with other agencies. These may include planning authorities, catchment boards, environmental and water resource regulators, road authorities, emergency services and agricultural, industrial and other commercial entities whose activities have an impact on water quality. It may not be possible to apply all aspects of resource and source protection initially; nevertheless, priority should be given to catchment management. This will contribute to a sense of ownership and joint responsibility for drinking-water resources through multistakeholder bodies that assess pollution risks and develop plans for improving management practices for reducing these risks".

In developing a WSP approach to manage compliance risks from glyphosate, water suppliers will have to work with catchment authorities and glyphosate users to assess the risk to their water supply abstractions. This will have to take account of the existing treatment regime and the barrier this might provide to glyphosate breakthrough. The scale of resource protection needed will vary from catchment to catchment but should take account of the information within this toolbox.

Reference for further detailed information:

1. EU Drinking Water Directive 98/83/EC (Click here)
2. European Commission Consultation on a revised Drinking Water Directive (Click here)
3. WHO Water Safety Plan (Click here)
4. WHO guidelines for drinking water quality (Click here)
5. IWA Bonn Charter for Safe Drinking Water (Click here)

See also:

- Impact of glyphosate on water supply abstractions
- Monitoring results for glyphosate and AMPA in surface and groundwater

Document status:

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