



Drinking water from surface water

Theme: Risk assessment procedures for pesticide registration

BO-06-010-005

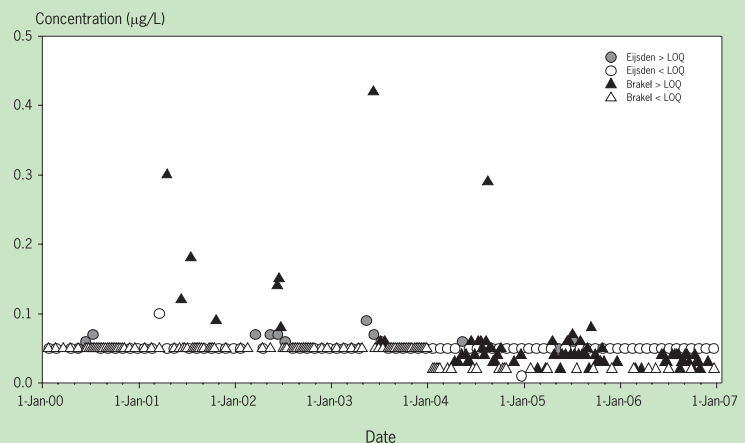
Problem

Since years the drinking water standard of 0.1 µg/L is regularly exceeded at surface water abstraction points. In a court case the Board for the Authorisation of Plant Protection Products and Biocides (Ctgb) was judged to have spent insufficient efforts to evaluate the drinking water standard during their registration procedure. So, the Ctgb needs a methodology to assess the risk of a pesticide for drinking water abstraction before it can be registered.

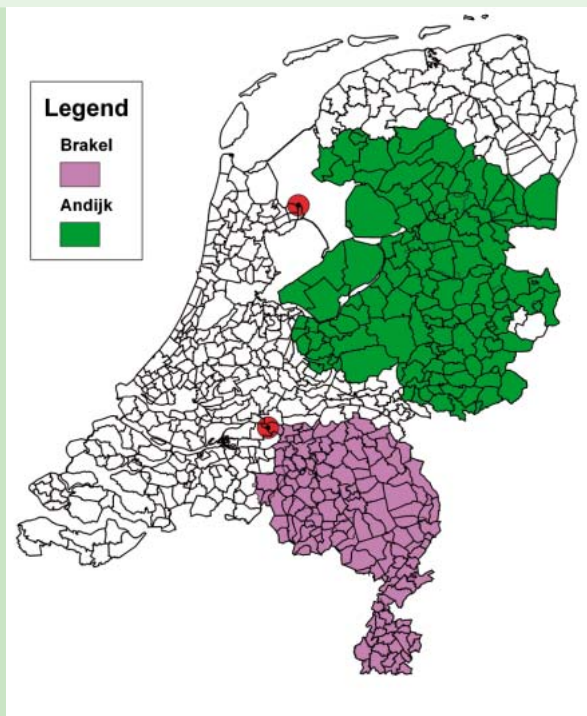
Approach

We developed a simple model to estimate the concentration at each of the nine Dutch abstraction points. We compared calculated concentrations to concentrations monitored during the period 2000 up to 2006 included. The model considers:

- All crops on which the pesticide is used
- Dilution from edge-of-field towards abstraction point by
 - Crop area as a ratio of total intake area
 - Market share
 - Degradation and volatilisation



Monitored concentrations of MCPA in the Meuse at Brakel during 2000-2006. The 0.1 µg/L standard is exceeded seven times.



The abstraction points (red dots) at Brakel and Andijk with their intake areas.

Results

Calculated concentrations agreed to monitored values in 9 of 14 suitable pesticide-abstraction point combinations. In 4 of the 5 remaining test cases the disagreement could be explained, e.g. because the dilution in the IJsselmeer was not taken into account, or because more details on the monitoring data became available.

Future use in risk assessment

The Ctgb will implement the methodology in their registration procedure. We will develop user-friendly software to enable an easy evaluation of the drinking water standard for surface water.

Communication 2008

Model development and policy options are being discussed in a workgroup with representatives of three ministries, the Board for the Authorisation of Plant Protection Products and Biocides, drinking water companies (Kiwa Water Research) and the Dutch phytopharmaceutical industries (Nefyto).

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