Pesticides & Water Quality
53rd Meeting of the Pesticide Forum

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Overview

Context, drivers for change

Water Quality & Agriculture Project

Pesticides and drinking water
- **Metaldehyde** (drinking water quality)
- **Oilseed rape herbicides** (water treatment)
- Current legislation, compliance and legal challenge
- Policy options and appraisal results
- Timetable
Farming & diffuse pollution

• WFD aims to improve water quality to the best it can reasonably be. Default objective is ‘good status’.

• Where we have identified a problem, Water Framework Directive requires us to act.

• 26% of water bodies at ‘good status’.

• Farming contributes significantly to water pollution (50-60% of nitrate load, 20-30% P, 75% sediment). This is responsible for a significant proportion of water bodies not being at ‘good status’.

• Defra is now developing an action plan, supporting a sustainable and competitive farming sector, to address these issues.
About a fifth of failures to meet good status are due to farming.

Breakdown of failures to achieve ‘good status’ in English water bodies attributed to agriculture and rural land management, 2013
Action Plan

- Creating commercial opportunities
- Smartening regulation
- Enabling innovation
- Engaging communities & partners
- Improving skills & advice
Smartening regulation

- Nitrates
- Silage, slurry & agricultural fuel oil
- ?Basic measures?
- ?Pesticides?
• **Drinking Water Directive** limits pesticides in drinking water:
  – 0.1 µg/l for any individual pesticide
  – 0.5 µg/l for total pesticide concentration.
  Water companies’ supplies must **must** meet these limits.

• **Water Framework Directive** requires drinking water protected areas (DrWPAs) to be identified and abstracted water to be treated.

• Protection measures must be implemented in DrWPAs to avoid deterioration and reduce treatment levels.

• DrWPAs are designated as ‘at risk’ when evidence shows that extra treatment is already needed, or is likely to be needed, to secure compliance with DWD standards.
107 DrWPAs are ‘at risk’ from pesticides

**Metaldehyde**

- Caused 88 (17%) DrWPAs to be at risk in 2013
- Cannot easily be removed from raw water
- This creates an infraction risk under the DWD, 2015+

**OSR herbicides**

- Several herbicides used in oilseed rape crops are also present raw water.
- This infraction risk is under WFD, 2018+?
Metaldehyde – policy options

Policy objective is to reduce metaldehyde use in fields. Industry itself is homing in on using ferric phosphate in areas where the risk is greatest.

Options appraisal suggests this is the most cost-effective option, but this was only 80% effective.

Other options included:
• National product substitution
• Catchment measures
• Crop rotation
• Pricing mechanism
OSR herbicides – the issue

- Significant times when propyzamide, carbetamide, and metazachlor are found at more than 0.1µg/l in raw water.

- Since 2008, water companies have increased treatment levels at a number of treatment works to remove pesticides.

- This current direction of travel creates infraction risk. A decreasing trend of water treatment would reduce the risk.
OSR herbicides – policy options

- No guilt-free alternatives - product substitution not an option.
- Legal requirement is less than for metaldehyde.
- Similar set of policy mechanisms appraised.
- Not using these herbicides in targeted areas would be most cost-effective.
- The Crop Protection Association is developing a voluntary, industry-led approach to include in our consultation.
- Consultation to include regulatory and voluntary approaches.
Timeline

• **Late 2014** – Consultation – on voluntary and regulatory options for both metaldehyde and OSR pesticides

• Part of consultation on the possibility of introducing some new rules on minimum levels of farming practice.

• **Early 2015** – Consultation closes.

• **May 2015**? – Government response.

• **Second half 2015 and 2016** – Implementation process

• **1st October 2016** – Target common commencement date if a regulatory option is chosen.