France has published a study of EU Nitrates Directive implementation in 6 EU Member States concluding that agricultural nitrogen (N) and phosphorus (P) regulation is a major challenge, requiring regionally adapted, strict regulation to achieve environmental objectives.

France?apos;s Agriculture and Environment Ministries have published a 160 page study of EU Nitrates Directive implementation and manure spreading limitations in six EU Member States. The report concludes by proposing the organisation of a workshop to bring together the six States concerned to exchange on experience of designing and implementing regulation and its effectiveness.

The six EU Member States studied are Germany, Belgium - Flanders, Denmark, Spain ? Catalonia, Ireland and The Netherlands, each of which was visited to meet competent regulatory authorities. Questions addressed and different countries? approaches compared include: definition of Nitrate Vulnerable Zones and Action Programmes; issues such as manure spreading limits, manure storage, balanced fertilisation calculation; financial and technical support; appreciation of effectiveness of programmes; coherence with other EU regulation. Detailed summaries for each of the six countries are provided in annex.

All the countries visited (except Denmark) have faced European Commission infraction proceedings for failure to respect the Nitrates Directive, though in most cases these were resolved some years ago, whereas France was condemned in 2013 and 2014 (see SCOPE Newsletter n° 107).

The report includes:

- Approaches to defining the geographical coverage of Nitrate Vulnerable Zones

- National transposition of the Nitrates Directive and regionalised Action Programmes

- Acceptance of Programmes by the European Commission and list of infraction procedures (p20)
Contents of Action Programmes, by country:

- types of fertilisation
- spreading dates, for different manures, on different crops / land uses
- spreading limits related to climate and soil, slope
- manure storage capacities and types
- minimal distance from water courses for fertilisation
- nutrient spreading (dose) limits for different crops, production levels, irrigation, types of nutrient used
- derogations, with a table for different Member States (p40)
- nitrogen production coefficients for different livestock

- Control and monitoring systems.

Defining and achieving environmental objectives

The Nitrates Directive does not fix water quality objectives (Editor?s Note: the Water Framework Directive very clearly does, however) and environmental objectives, measurement and progress assessment methods vary significantly between the different Member States. Once basic obligatory measures are put in place, reductions in water resource nitrate concentrations in response to further actions become slower. ?Legacy? nitrates continue to migrate into groundwater for many years.

Measures also vary considerably between different regions in Member States which have designated large Vulnerable Zones, in order to adjust to varying climate, livestock systems, water quality issues.

Five of the six Member States studied have obtained derogations to the Nitrates Directive ceiling of 170 kg manure-derived nitrogen per hectare. In exchange, their Action Programme obligations are considerably stricter in regions where the derogation applies, and become even stricter as
derogations are repeated.

The Member States have a holistic approach to fertilisation and manure spreading, covering both phosphorus and nitrogen, water quality (EU Water Framework Directive) and air quality (National Emissions Ceilings Directive), soil quality, agricultural practices and nutrient recycling. Measures tend to be geographically targeted, particularly strict in identified highly sensitive zones.

Denmark, The Netherlands and Flanders have detailed systems for calculating balanced fertilisation, including data input directly online by farmers and other actors. Data on fertilisation is compounded with CAP data (hectares, crops), animal identification data and other regulatory obligatory declaration data. These systems can support farmers in defining appropriate fertilisation, input to nutrient accounting and enable controls.

The study notes that pressure on manure management, which is intensifying with the end of milk quotas, is leading the Member States to innovate in regulatory and social techniques, and to wish to negotiate new regulatory tools with the European Commission.

**Need for research, support and exchange**

The report notes that in the different Member States scientific expert assessment, R&D and consulting support to farmers are in place, often combined with assistance to farmers to optimally use EU farm support funds and to prepare for regulatory changes.

The authors identify a need to work in each Member State to establish and improve modelling of impacts of Action Programmes and to estimate when these are susceptible to result in achieving Water Framework Directive quality objectives for surface and ground water.

They conclude with the proposal to organise a meeting between the different Member States concerned to discuss the report conclusions and a prospective vision of Nitrates Directive implementation.
Analyse de la mise en œuvre de la directive nitrates par d'autres Etats membres de l'Union européenne. Allemagne, Belgique (Flandre), Danemark, Espagne (Catalogne), Irlande, Pays Bas? (Analysis of implementation of the Nitrates Directive by other European Member States: Germany, Belgium (Flanders), Denmark Spain (Catalonia), Ireland, The Netherlands. J. Gault, M. Guillet, C. Hubert, F. Paulin, M-C. Soulié, CGEDD n° 010012-01 ? CGAAER n° 14123, September 2015, 154 pages, in French


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