



Imperative of Maintaining Environmental Research to support the Nitrates Action Programme and Derogation in Northern Ireland

Dr John Bailey

Agri-Environment Branch (AEB)

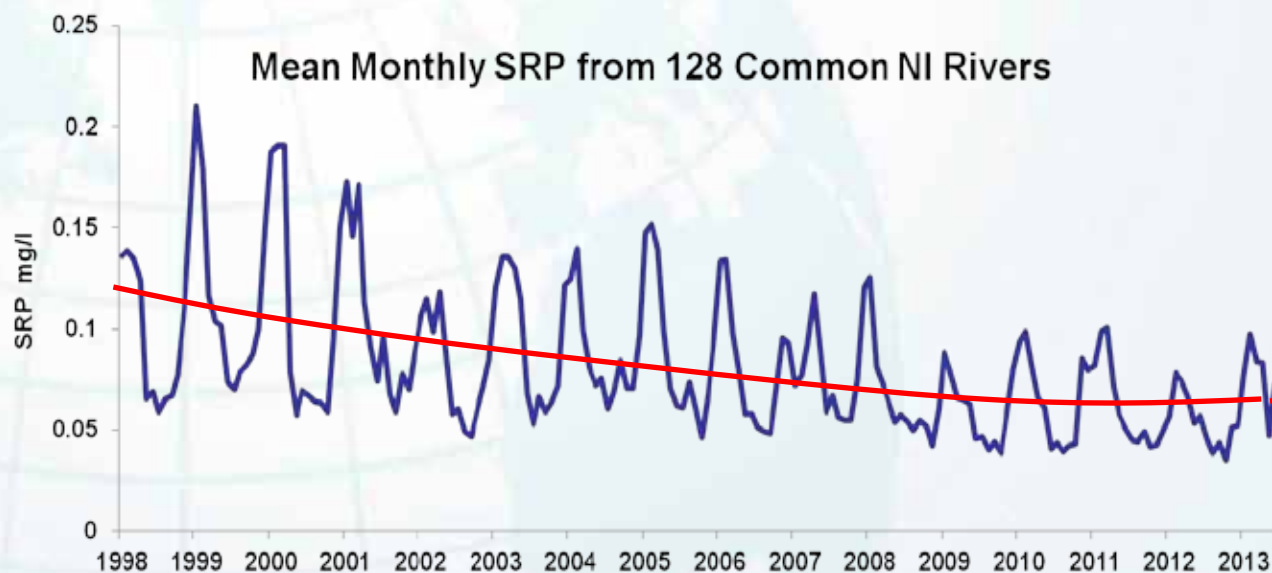
RECENT Environmental Research Achievements:

- q **No extension to the slurry spreading 'closed-period' to include February and all of October – saving NI farmers up to £37 million in additional slurry storage costs**
- q **Retention of the Derogation allowing higher stocking rates to be maintained - saving the dairy industry up to £1 million per year in additional land rental costs**
- q **The splitting of soil P Index 2 range into 2⁺ and 2⁻ with new higher P recommendations at Index 2⁻ - preventing up to £10 million worth of lost grass production**
- q **Slurry P availabilities revised from 100% to 50% on soils at P Index 0 and 1 - enabling farmers to fully meet the P needs of grass and crops on low P soils and encouraging the redistribution of manures away from soils of high P status**



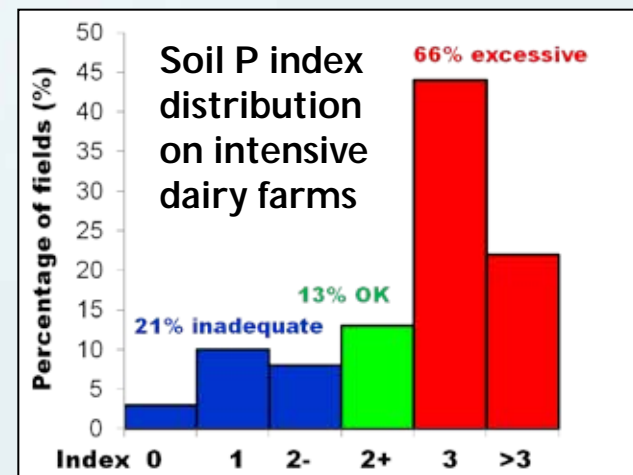
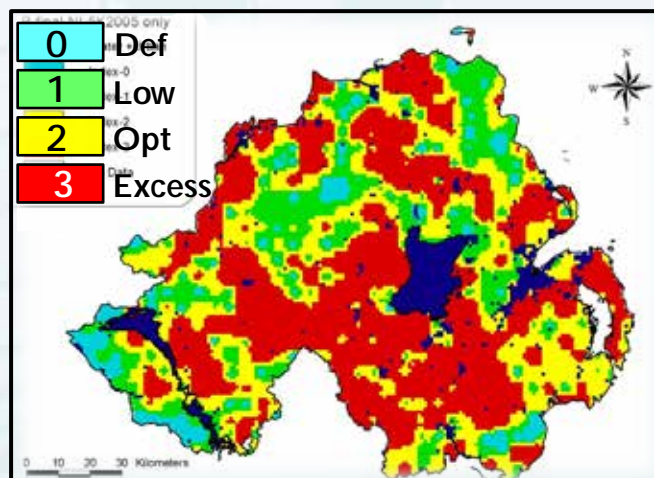
Why Environmental Research Remains CRITICAL:

- Water quality in NI rivers appears to have ceased improving – RISK that EC will insist on more stringent controls being placed on the farming industry



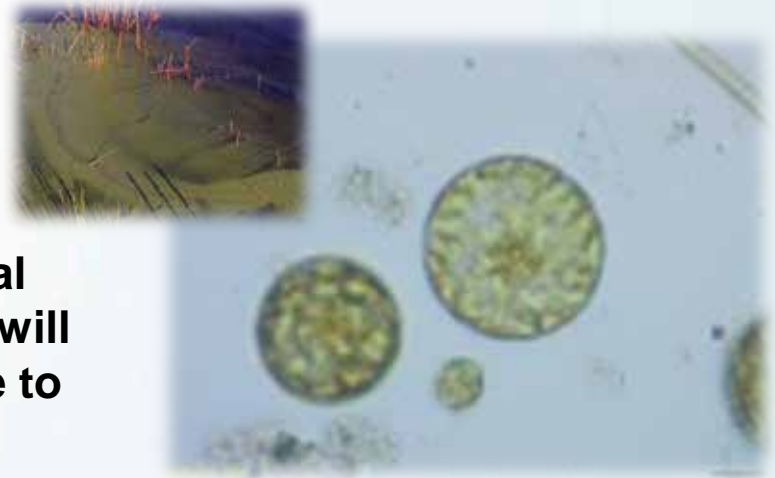
Beneficial reductions in SRP concentrations in water-bodies achieved over the past 15 years now appear to be halting - and may even be reversing

- Almost 40% of farmland in NI remains overly enriched with P (>Index 2), and this P is at high risk of being lost to water



Why Environmental Research Remains CRITICAL:

- q While the NAP and P Regulations are focused on improving chemical water quality, the WFD has ecological targets which are NOT being met. If this situation continues, even lower chemical standards may be set by the EC, which will further increase pressure on agriculture to reduce nutrient losses to water



- q The New Derogation has Existing plus New monitoring and reporting requirements (*reporting to start in June 2016*) - BUT these cannot be met unless monitoring at farm and catchment scales commences this autumn

- q These reporting requirements include:

- ∅ *Monitoring of soil, surface water and groundwater under derogated and non-derogated conditions in agricultural catchments*
- ∅ *Monitoring of N and P concentrations in soil water, and mineral N in the soil profile under derogated and non-derogated conditions at farm and field scales and modelling of N & P losses*

Previously based on catchment monitoring by AFBI – But funding no longer available

NEW!

VITAL New Research, Monitoring & Demonstration:

- q Research – Quantifying the release of historical P from sediments in Lough Neagh and investigating factors affecting the recovery of biological water quality
- q Research – Determining the potential for P absorbing materials to remove P from land drainage water (at critical points) prior to entry into streams and rivers
- q Monitoring - A new scientifically based monitoring programme to address the requirements of the Derogation Decision and provide evidence to underpin the new Nitrates Action Programme (NAP)
- q Demonstration - Demonstration farms to (a) validate new technologies and best practices, (b) demonstrate their efficacy to local farmers, and (c) convince the EC that NI is being proactive in addressing its water quality problems



Demos

