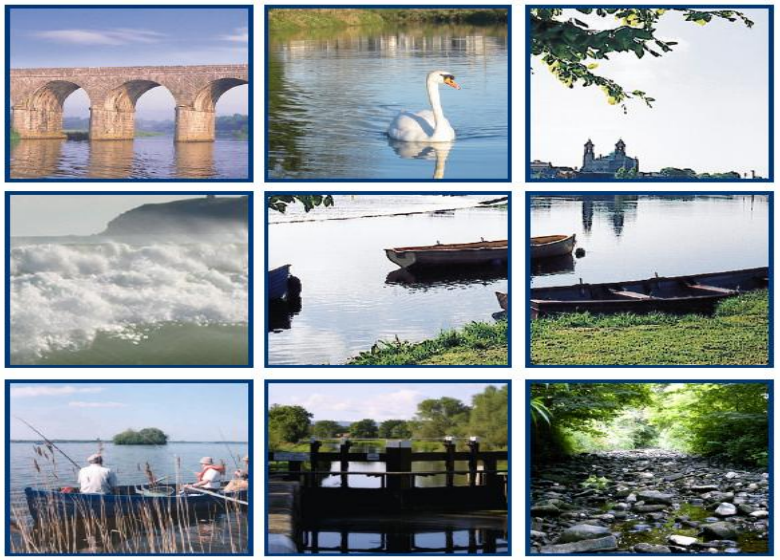
Ireland-Nitrates Directive

Department of Agriculture, Food and the Marine
An Roinn Talmhaíochta, Bia agus Mara



Presentation overview

- Ireland's farming landscape
- Nitrates Action Programme
- Research
- Water quality in Ireland
- Support /initiatives

Ireland's farming landscape

- Total number of farmers – 139,860
- Average farm size – 32.7 ha
- Total area farmed (000ha) – 4,600

- Grass based production system
- Long growing season
- Long grazing season

Figure 1.7 Utilisation of land, 2010

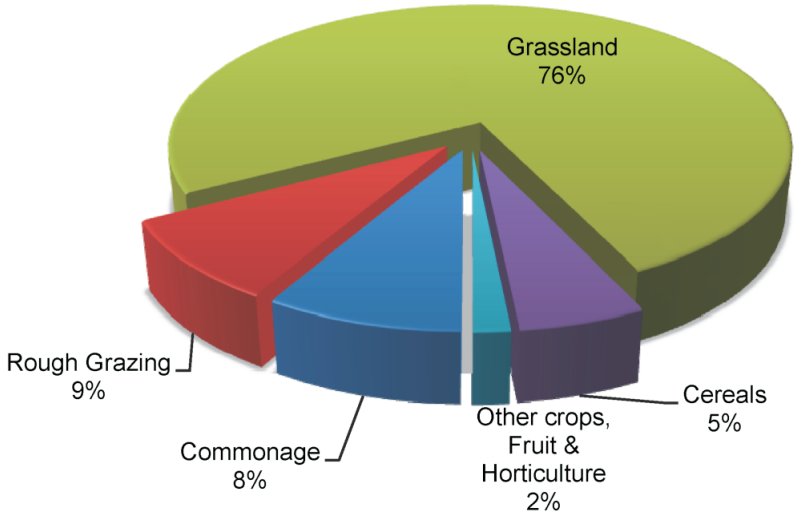
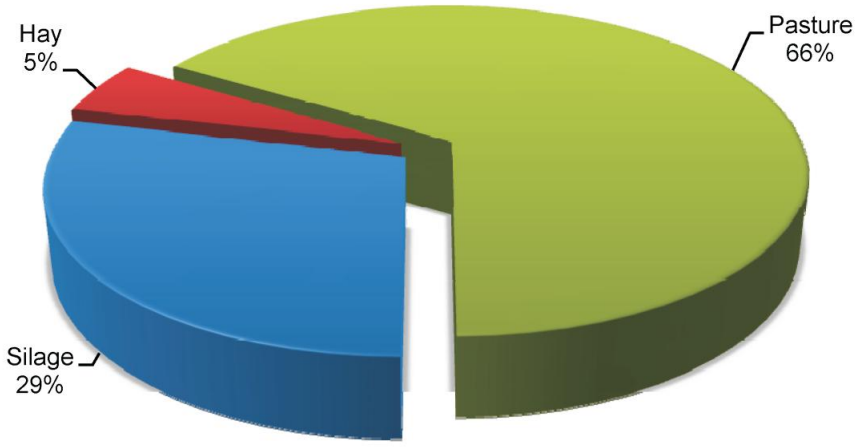


Figure 1.12 Grassland, 2010



Importance of grazed grass

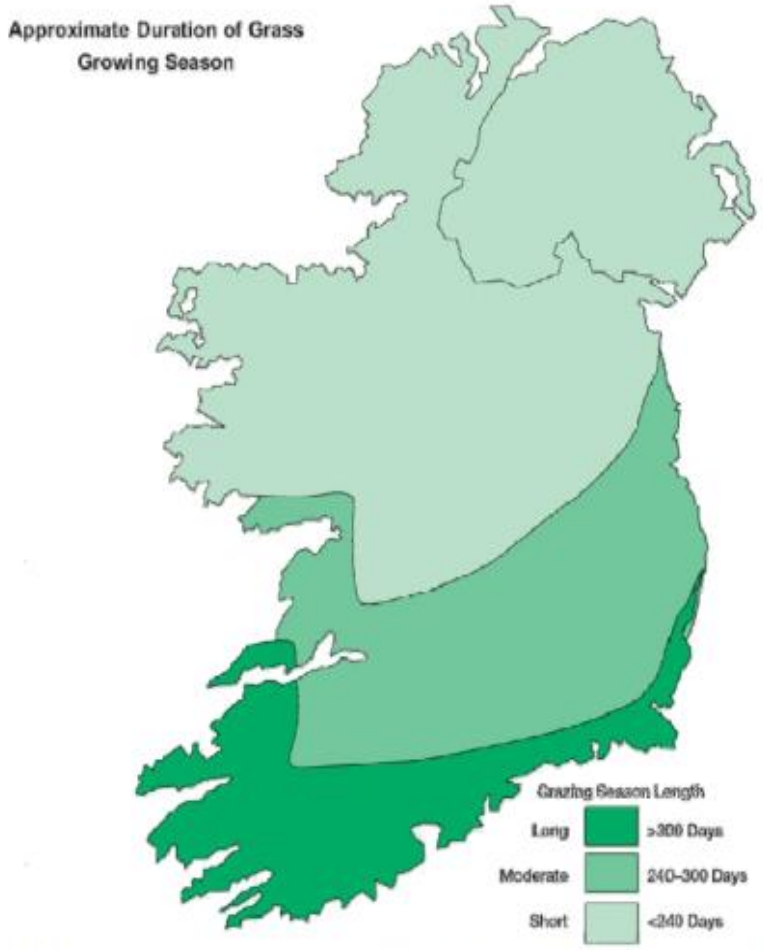


Figure 5. Length of grazing season (days/year) – based on Collins & Cummins (1996) p. 155, taking into account climatic, topographical and soil factors that impact on grazing conditions.

Grass €80/t DM

Grass silage €150/t DM

Concs €265 / t

Nitrates Action Programme

Whole territory approach

- 100% admin. check on livestock manure N limit

Legally binding limits set for N and P

- N and P fertilisation rates in the Regulations cannot be exceeded

Inter Departmental and agency co-operation

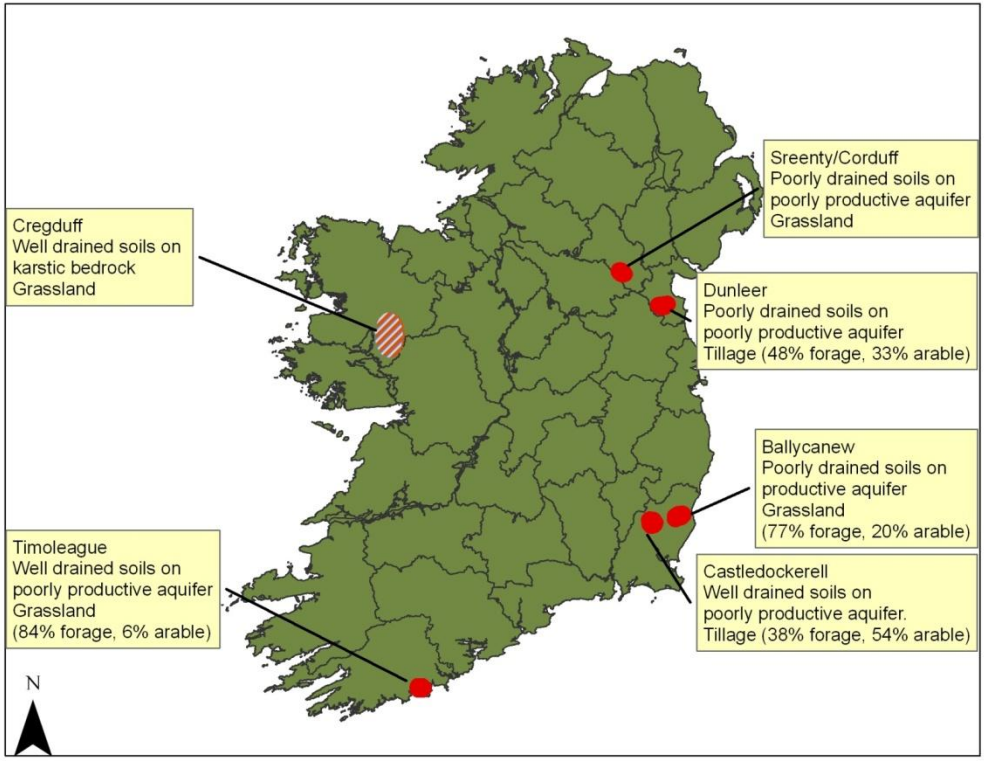
Research
Agricultural Catchments Programme (ACP)

- Evaluates effectiveness of measures set out in Nitrates Action Programme
- 6 agricultural catchments

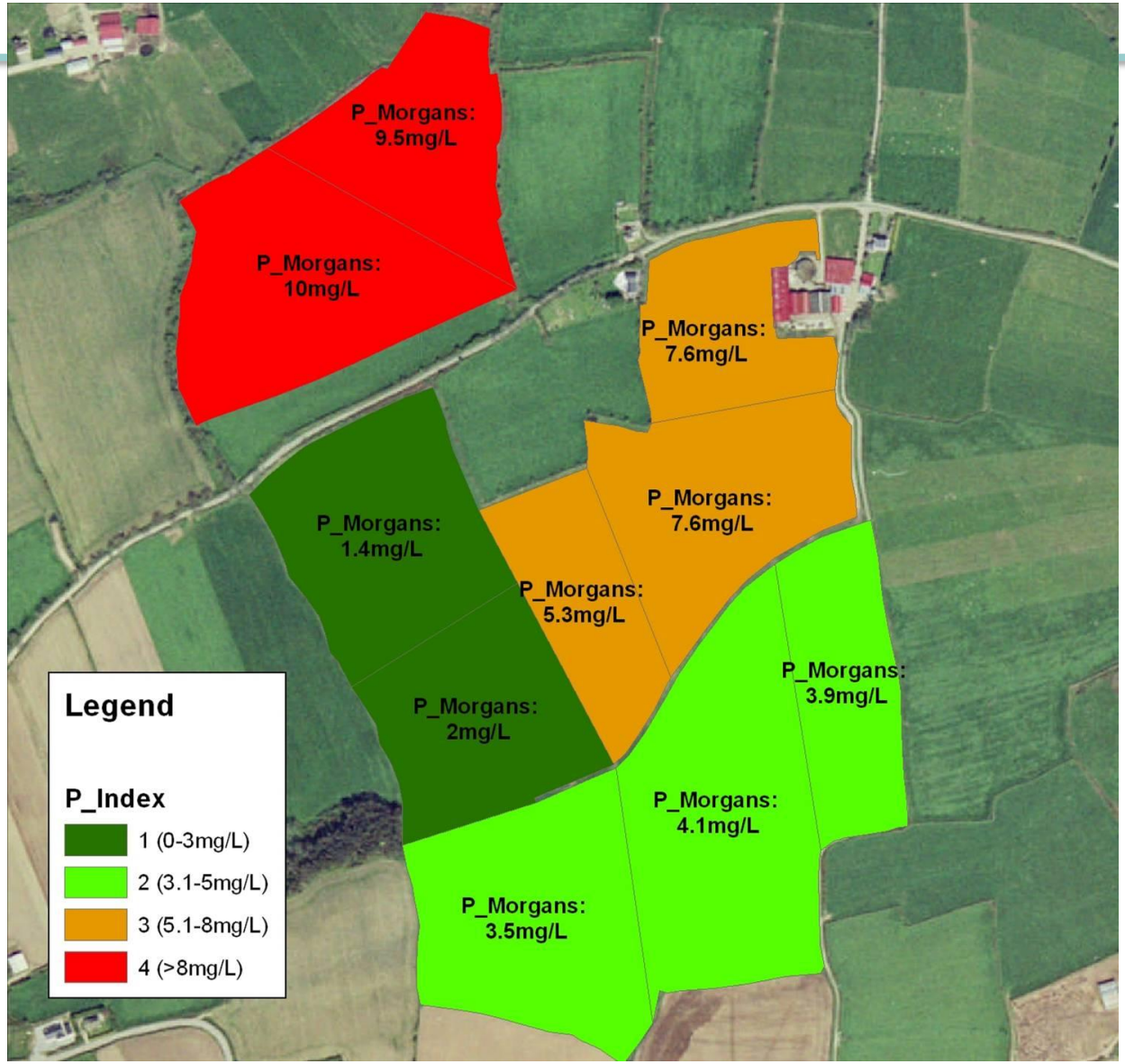
- >300 participating farmers – full advisory service
- Phase 1 (2008 –2011); Phase 2 (2012-2015)

Website link

- http://www.teagasc.ie/agcatchments/



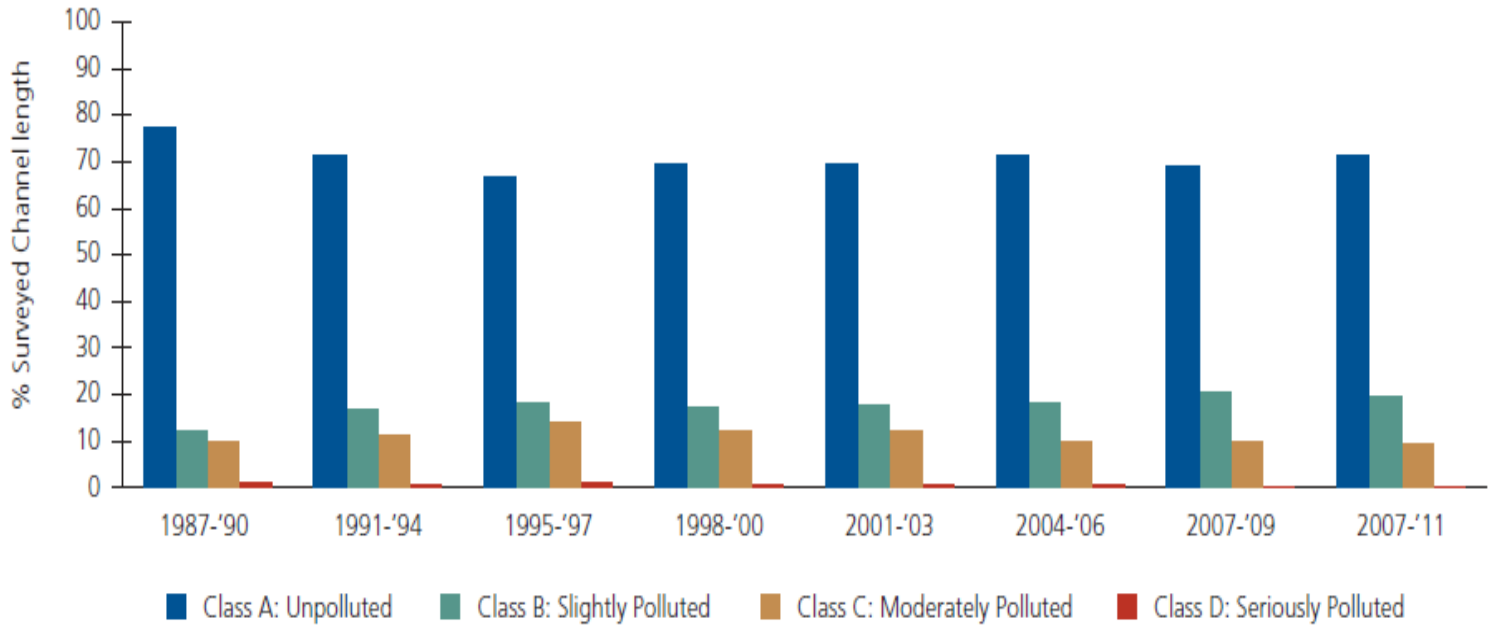
Online NMP and mapping



ACP – findings to date

- Annual nutrient load losses low to moderate
- Significant climatic effect on losses
- Farm gate nutrient balances declining
- Nutrient efficiency increasing
- Decreasing % of excessively high P soils
- Potential for further improvements with advisory support
- Lag times 5-20 years between changed nutrient management under the NAP and changed soil P status

River Water Quality trends 1987-2011



- 13,188 km of river and stream channel assessed by EPA in 2007-2011 using a biological assessment method based on macro-invertebrates ('Q-value' quality rating system)
- Provides an overall representative picture of the state of Ireland's larger rivers and streams
- 71 per cent of channel length classed as unpolluted
- Generally stable trend in the length of unpolluted channel

Average nitrate concentrations in groundwater

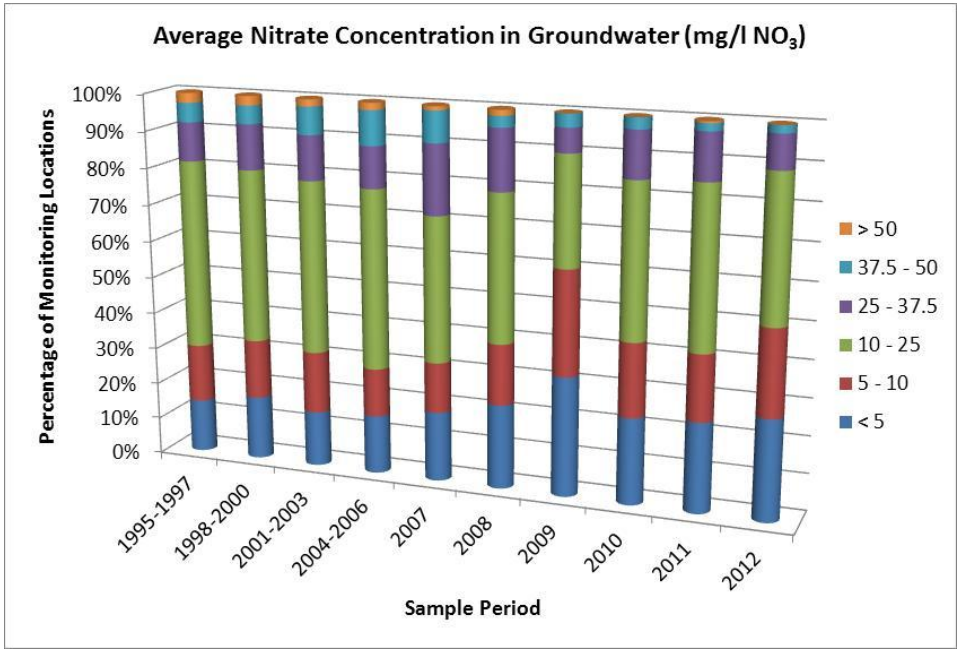
2012

Average NO_3 concentration at all EPA groundwater monitoring stations < MAC for Drinking Water of 50 mg l-1 NO3

- Threshold value of 37.5 mg/l NO_3 used to assess groundwater chemical status

< 37.5 at 98% of monitoring locations

- <25 mg/l NO_3 at 89% of monitoring locations
- Gradual reduction in the percentage of monitoring stations with average concentrations >25 mg/l NO_3



Trend towards reduced river nitrate levels

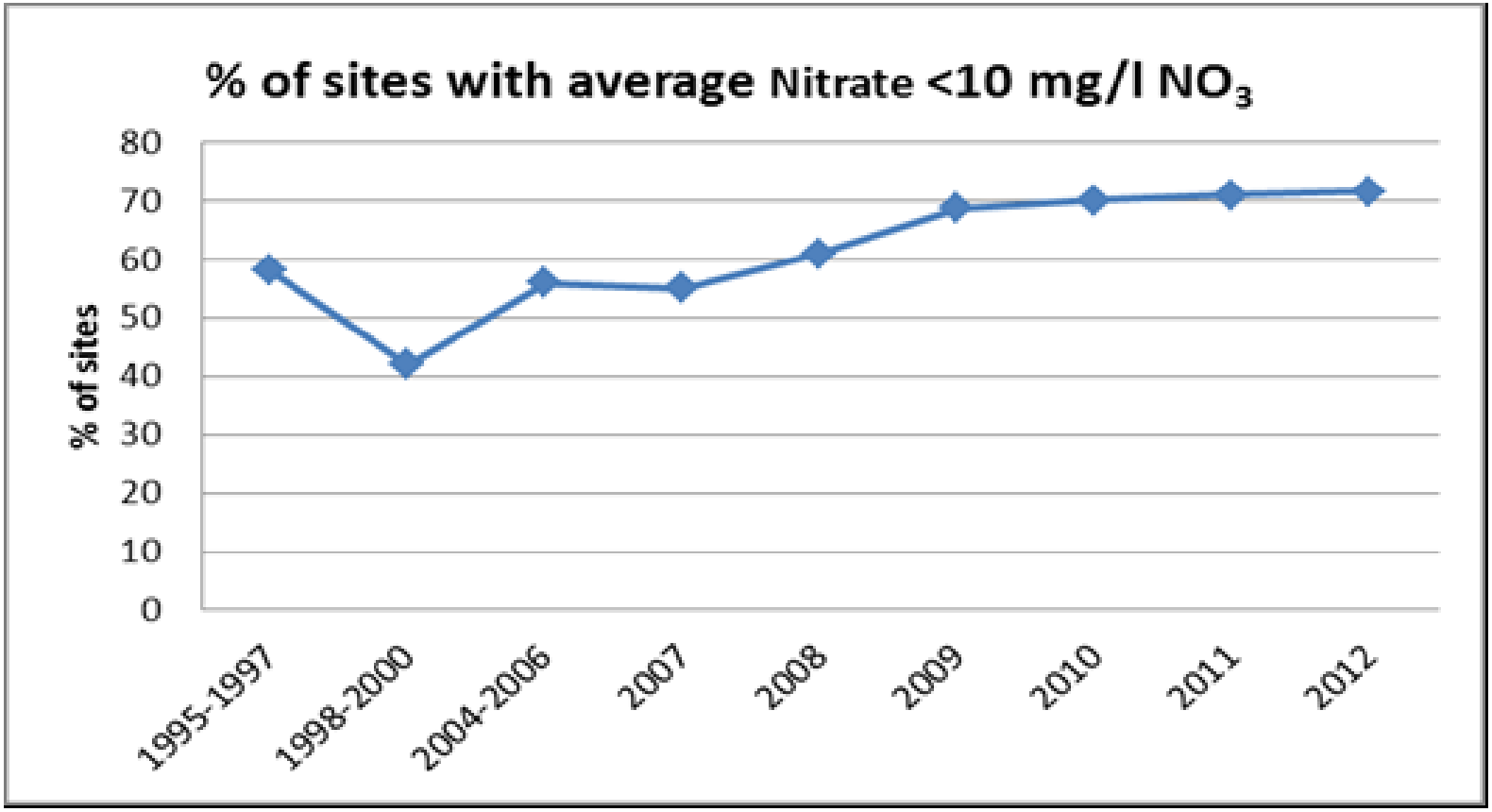
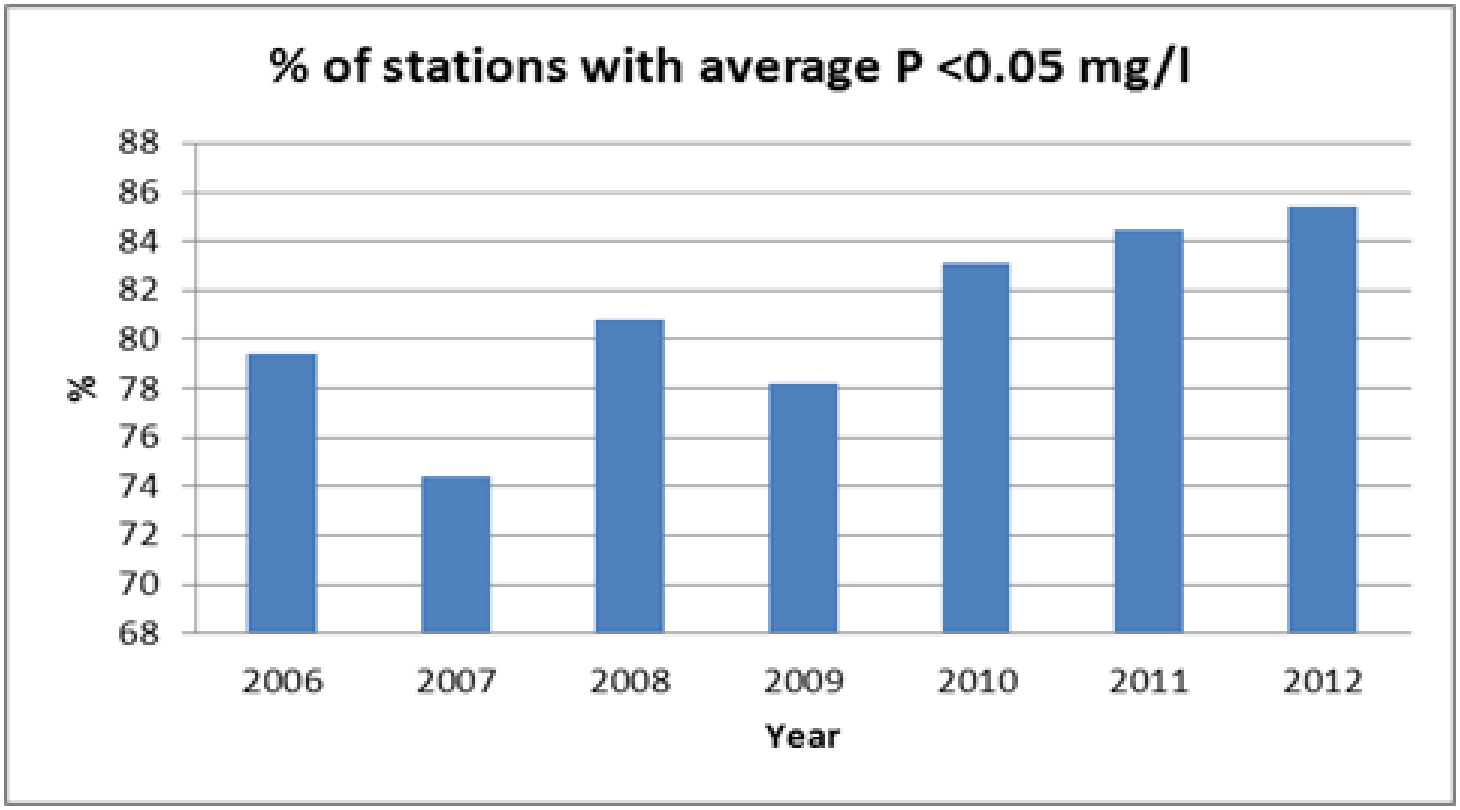


Figure 1.4: Percentage of river monitoring locations with average phosphate concentrations <0.05 mg l^{-1} P (EPA, 2013)



Supports

- Farm Waste Management Scheme (€2.1 billion invested), ongoing investment
- Farm Advisory System (FAS)
- Cross compliance and Local Authority inspections
- Agri-Environmental Schemes (REPS 4 and AEOS 1, 2 & 3)
- FH2020 Smart Green growth
- DEP, STAP, BTAP – incentivised discussion groups to accelerate knowledge transfer (c 15,000 farmers)

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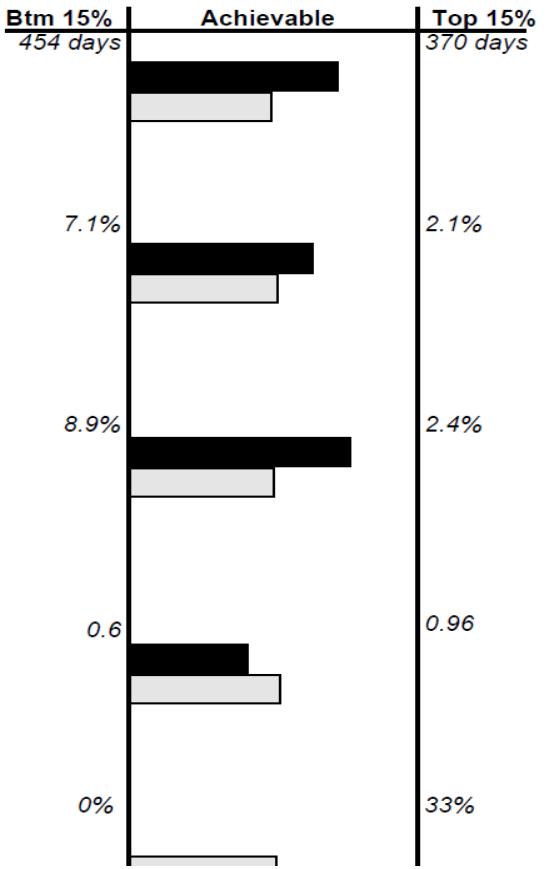
Beef Calving Statistics (01/07/2013 --- 30/06/2014)

2. Top 5 Key Performance Indicators (KPI's)



1. Calving Interval (days)

Average number of days between successive calvings for cows calved during the period

Your Herd	**393 days**
National Average	**412 days**

2. Mortality - Dead at Birth (%)

Number of calves born dead **(2)** as a proportion of all births during the period **(51)**

Your Herd	**3.9%**
National Average	**4.5%**

3. Mortality - Dead at 28 Days (%)

Number of calves born dead or dead within 28 days, **(2)** as a proportion of all births recorded during the period. **(51)**

Your Herd	**3.9%**
National Average	**5.6%**

4. Calves per cow per year [2]

Number of calves per cow per year, expressed as a proportion of all eligible females in the herd. **(61)**

Your Herd	**0.75**
National Average	**0.79**

5. % of Heifers calved 22-26 months

Your Herd	**0%**

Supports

- Beef Genomic Scheme

- BETTER (Business, Environment and Technology through Training Extension and Research) Farm Programme
  - *Targets beef, tillage and sheep farms*
  - *Knowledge transfer from research to farm level*

- Bord Bia's Beef & Lamb quality assurance scheme

- Origin Green – Sustainability Development Programme

Rural Development Programme

€4.1 bn 2014-2020

GLAS

On farm capital investments

Organics

Knowledge transfer

GLAS

- 5 yr scheme
- Target participation 50,000 farmers
- Max payment €5,000
- Compulsory soil sampling
- Compulsory FAS advisor involvement

GLAS

- Priority access

- High status sites
- Farmers stocked > 140 kgs N/ha
- Farmers > 30 ha arable crops
- Registered organic farmers

- Must select specific actions

- Riparian margins
- Fencing of watercourses
- Low emission slurry spreading
- Green cover

Summary

- Significant improvements in NO_3 concentration
- Many rivers stable and very low P conc.
- Progress made in reducing ag. impacts on water quality
- Lag times

Summary

- Nutrient use efficiency increasing
- Grass based production systems
  grass growth virtually all year round
- Whole territory Action Programme (N and P)
- Co-operation between agencies and Departments
- Water quality good and improving

nitrates@agriculture.gov.ie
053-91634444