

Implications of the Directives for the Farming Industry

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Directives require

- Good Ecological Status/Good Chemical Status for all waters by 2015
- And define good status as only slightly changed from reference conditions

Farming

- Occupies 75% of the land surface
- Uses the environment as its factory floor
- Changes the quality of water that drains through it

Potential pollutants from farming

Point Source

- BOD
- ammonia

Diffuse source

- nutrients
- pesticides
- soil
- microbial pathogens

Example

- What does compliance with the “nitrate standard” mean for agriculture

Agricultural science – plant nutrition

In natural systems -

- plant growth is limited by nutrient availability
- any nutrients released are rapidly scavenged and little is lost

In modern agriculture -

- sufficient nutrients are provided to remove this limit on yields
- the system is no longer nutrient hungry and any released is not scavenged

Biological science

- Soil naturally contains vast quantities of nitrogen (typically 4 tonnes/hectare)
- A small proportion is released as nitrate each year, especially when soil is warm and wet
- Clearing the land of vegetation removes the uptake
- Large nitrate release follows –
 - clear felling forest
 - ploughing natural grassland
 - harvesting (killing) an agricultural crop

Nitrate numbers

NSA Nitrate Leaching Results (mean)

1994/95 99 mg/l (289 sites)

1995/96 122 mg/l (289 sites)

1996/97 126 mg/l (191 sites)

Message

- Achieving the “nitrate standard” of 50 mg/l is challenging
- Other parameters may be equally challenging

Cost estimates

- Regulatory Impact Assessment estimates agricultural costs up to £M2900
- Equates to over £16,000 per farm
- This covers nutrients only

Who bears the cost?

- Farmers are price takers
- Farm produce is mostly internationally traded commodities
- Costs cannot be passed on for most farm produce
- Costs therefore impact directly on the profit and loss account
- Many farmers could not sustain costs of this magnitude

Conclusion

- Implications of the Directives for farming could be serious to unsustainable
- Principal issue is inability to pass on costs to the customer
- This may lead to political problems

