

NITRATE

WHY IS IT SO IMPORTANT TO GROWERS?

Chemical and natural fertilisers, which contain nitrate, are key to helping farmers grow crops efficiently and profitably.



WHAT CAN FARMERS DO TO HELP REDUCE THE IMPACT OF NITRATE ON WATER QUALITY?

As part of a nutrient management plan, there is a variety of mitigation measures that farmers can take to help reduce the impact of nitrate on drinking water quality.

Assess pollution risks

You must take into account the risks of runoff and soil erosion from these factors:

- The angle of slopes, in particular if the angle is greater than 12 degrees
- Amount of ground cover
- Distance to inland freshwaters, coastal waters, wetlands, springs, wells or boreholes
- Soil type and condition
- Presence and condition of land drains

Application of fertiliser and manure

You can:

- ✓ Use precision nutrient mapping and fertiliser application equipment

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WHAT IS THE ISSUE FOR WATER COMPANIES?

Leaching and runoff of nitrate results in ground water and surface water exceeding the drinking water standard of 50mg/l as NO₃.

The process to remove nitrate from water is specialised and very expensive.

You must not apply fertiliser:

- ✗ On waterlogged or flooded soil
- ✗ When the soil has been frozen for more than 12 hours in the past 24 hours
- ✗ Within 2m of a watercourse

You must not use manure:

- ✗ On waterlogged or flooded soil
- ✗ When the soil has been frozen for more than 12 hours in the past 24 hours
- ✗ Within 50m of a spring, well or borehole
- ✗ Within 10m of inland freshwaters or coastal waters unless you're using precision equipment or you're managing land for specific environmental benefits

WHAT CAN FARMERS DO TO HELP REDUCE THE IMPACT OF NITRATE ON WATER QUALITY?

6M EXCEPTION FOR PRECISION EQUIPMENT

You can apply manure no closer than 6m from inland freshwaters or coastal waters if you use:

- A trailing hose or shoe band spreader
- A shallow injector (no deeper than 10cm)
- A dribble bar applicator



Storage of manure

You must consider risk factors for runoff when deciding where to store manure on your land.

You must not store it:

- ✗ Within 10m of inland freshwaters or coastal waters
- ✗ Within 50m of a spring, well or borehole

Cover crops

Planting cover crops, rather than leaving soil bare, has various positive benefits, including less nitrogen leaching into ground water.

This also helps suppress weeds, meaning fewer pesticides are required, and leads to reduced runoff.



NITRATE VULNERABLE ZONES (NVZ)

Nitrate Vulnerable Zones (NVZ) are areas designated at being risk from agricultural nitrate pollution. They include about 55% of land in England.

How can I find out if my land is in Nitrate Vulnerable Zone (NVZ)?

 Visit the Environment Agency (EA) website:
environment-agency.cloud.esri.uk.com/farmers

 Visit magic.defra.gov.uk

 Ask your agronomist