



January 2011

# Nitrates (N)

## What are they?

Nitrates are necessary nutrients for plant growth.



## Why test for them?

Excess nitrates will cause excessive plant growth in surface waters. The resulting decay of the plant materials removes oxygen that is used by fish and other organisms.

Nitrates can potentially interfere with the blood's ability to carry oxygen in humans and other animals.

In cattle it may cause shortness of breath and the blood will look brown instead of red. Nitrate poisoning may cause cattle to froth at the mouth, suffer convulsions, appear blue around the muzzle and have a bluish tint around the eyes. Moderate poisoning is thought to cause poor growth, infertility, abortions and vitamin A deficiencies.

## Where do they come from?



Sources of nitrates include fertilizers, animal manure, human wastes, and industrial wastes. Improperly located septic systems and concentrated animal feeding operations are sources of runoff that is high in nitrates. In addition, there are naturally occurring nitrates.

## How can we prevent them from entering our surface waters?

Nitrate pollution can be minimized by protecting the watershed against erosion, excess runoff from feedlots and fields.

For more information about the Nonpoint Source Pollution Management Program contact:  
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