Livestock Manure Pollution Prevention Project

Field tips for preventing tile water contamination:

- Break up macropores before manure application either by tillage before surface application or by zone-tillage of the soil ahead of the injector. Injection minimizes surface runoff, odour, and ammonia loss.
- Especially in no-till, side dress manure when soil is drier, tiles are less active, and soil has been disturbed by planting.

If a tile drain carries water off of your property, consider doing the following:

- Install a catch-basin to allow inspection of tile water leaving your property.
- If the drainage water in the catch-basin is discoloured, cap the basin outlet and pump the water back onto the land until the drainage water runs clear.
- If tile outlets do not drain into catch basins and the water is discoloured, a barrel can be installed to contain and pump contaminated water back onto the field. Alternatively, if the land is level the outlets can be temporarily plugged by inflating a sports ball surrounded by foam to expand into the pipe corrugations.
- Consider splitting the total application rate over two passes several days apart if the tile drainage water is discoloured.

When applying manure, farm management options must consider the following:

- the crop's nutrient needs in each season,
- the "pathways" manure can take to reach a stream,
- the sensitivity of fish and fish habitat to manure spills.

Assessing these factors is the first step to best utilizing manure nutrients while minimizing the risk to fish habitat and protecting water quality. Properly managing manure resources will help meet crop nutrient needs over the long term and protect the aquatic environment.

Weekly Nitrogen Uptake of Corn for 150 bushel per acre yield