# Bioreactor Fact Sheet

ADMC Agricultural Drainage Management Coalition

## About

**Bioreactors** divert a portion of tile flow to an underground bed of wood chips. The wood chips provide a carbon source that spurs denitrification. The wood chips last 10 - 15 years before needing to be replaced. Bioreactors are suitable for tiles with consistent flow and known high nitrate concentration.

**24%** Average nitrate-N load reduction

Installation cost range from **$15,000-$20,000**

- Water quality
- Fits many locations

## Basics

### Site requirements

Generally operate on drainage systems with 6-12 inch mains, but can work with larger systems than saturated buffers.

- Can be inline or near an outlet
- Perform best in sites without a high water table
- Wood chip bed depth matches the main depth

### Footprint

Approximate size is 100 feet long by 20 feet wide, with 1 or 2 control structures above the ground.

### Maintenance

Stop log depth may need to be adjusted during the season depending on the site. It is best to remove all stop logs from the outlet control structure when tile flow stops. The wood chips will need replaced in 10-15 years.

### Bioreactor Schematic

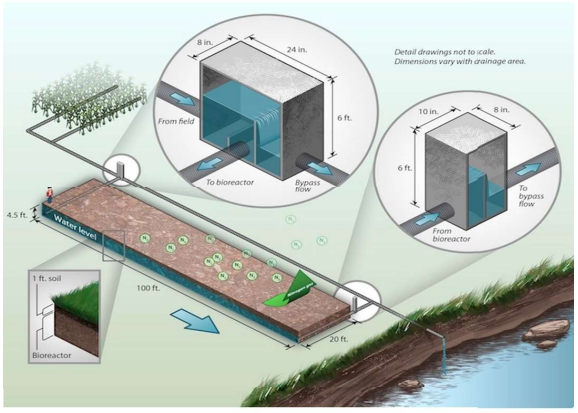


Image courtesy of ISU Extension, John Peterson

## Interact with ADMC

515-291-2350

kkult@admcoalition.com

**For more information visit us at www.admcoalition.com**