

# ENVIRONMENTAL CONSIDERATIONS

# You are a Visionary

- Your Vision
  - Livestock Operation
  - selling milk, beef or pork
- Digester
  - Generate & selling electricity, use the heat off the generating process to heat water for farm use.

# DO NOT STOP PLANNING HERE!

- Costly mistake!!!
  - Financial
  - Headaches

# YOU are a Visionary

- You see value in what many consider a waste product.
- This alone put you ahead of the game.
- This is not going to be all roses their is going to be some dark areas along the way.

# How to Minimize the Dark Areas

- Planning
- Planning
- Planning

# Planning

- Where do I go for information and Help?
  - County Feedlot Officer or MPCA
  - Local Soil Water Conservation District
  - Local Natural Resources Conservation District

# Think outside the box

- Actually think a little backwards.
- What am I going to do with the digestate.
  - Recycle or Reuse within the livestock operation
  - Land application as a soil amendment.
  - We would not be here today if we did not believe that manure is a marketable resources!!  
There is still many resources left after it has gone through the digester.

# Recycling

- What are we going to recycle
  - liquids, solids, or both?
- Am I going to need a separator
- If we are not recycling both, what are we going to do with what is left?
- Some where in the process there is probably going to be some land application of the digestate.

# Land Application

- If you plan to apply the digestate on agricultural land.
- New State 7020 Rules
  - The new rules that apply to the land application of raw manure will also apply to the land application of digestate!

# Best way to deal with new 7020 Rules

- Planning
- Talk with your Crop Consultant.
- Develop your Nutrient Management plan in advance.

# Nutrient Management Plan

- Long Range plan and a short range plan that shows how you are going to wisely use the nutrients in your digestate in an environmentally safe manner that will stop and or minimizes its potential to move off site.

# Questions to be considered

- How much land do I have to spread digestate on?
- How many acres do I need?
- What is the distance to the land for field applications?
  - It is cheaper to haul solids than liquids a long distance.
- What Sensitive Areas do I have on or near my property?

# Sensitive Areas

- What are sensitive Area
  - Lakes
  - Perennial or intermittent Streams
  - Coarse textured soils
  - Sink holes
  - Steeply sloping land
  - Open Tile intakes
  - High Phosphorus Soils
  - Road Ditches
  - Drainage Ditches
  - Protected Wetlands
  - Frequently Flooded Soils
  - High Water Table Soils
  - Shallow soils over bedrock

# Environmental Considerations

- If we start our planning at our environmental concerns and work backwards, will we end at where we wanted to start?
- If not we have to make some changes.

# You are the Visionary

- This is your advantage including more people into your vision will only improve it. It will also cut down on your stress.
- Assistance
  - County Feedlot Officer or MPCA
  - Local Soil and Water Conservation Districts
  - Natural Resources Conservation Service