

# Manure Management Systems

## *Things to Consider in Advance*

If you are anticipating a change in your manure management practices, here are some questions and guidelines to help you plan, design, operate, and maintain a safe and effective manure management system.

## Planning

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When planning to build or expand a manure management system, you will need to determine three things: how much storage capacity you will need, where you will locate it, and what systems you will use to store and handle it. In addition, you will need a plan to utilize the manure nutrients, and a plan for safety.



### 1 How much storage capacity will you need?

*To determine the volume of material you have to store, you will need to know or consider:*

- Quantity of Manure Produced
  - Type of animals
  - Number of animals
  - Length of storage period
- Type and amount of bedding
- Feed wastes and other waste sources
- Wastewater (if included in storage)
  - Flush system
  - Parlor
  - Milkhouse water
  - Drinking water overflow
  - Cooling water
- Rainfall directly onto storage facility
- Runoff from surrounding area
  - Size of contributing drainage area
  - Amount of rainfall during storage period
- Removal equipment
  - What is the capability of your equipment to remove different consistencies of manure to a specified depth?
- Freeboard requirements
  - Safety feature to reduce risk of overflow due to unforeseen circumstances



### 2 Select the location

*The following criteria are critical to selecting a suitable location:*

- Horizontal distance to wells
- Vertical distance to seasonal high water table or bedrock.
- Note: This may require a determination by a qualified soils investigator to a depth 3'-5' below the planned bottom elevation.**
- Floodplains and flooding potential
- Topography of the site including relative elevations of existing and planned buildings, facilities, grassed waterways and access roads.
- Acceptable soil types
- Distance from barn and limits of transfer system