

Proper manure management is important for all farms

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Using best management practices can help protect the environment. These practices can also improve the health and well-being of your animals and increase your farm's profit.

What is considered a small farm? A 3,000 head beef feedlot? A 30,000 head free-range turkey operation? A dairy with 50 head? Or maybe a stable with 10 horses? There really is no right answer to this question.



you'll note that a lot of agricultural production comes from small farms. Small farms may include animal feeding operations (those with fewer animals than the confined animal feeding operation threshold), small scale commercial production or hobby farm enterprises (horses or show/heritage/exotic breeds of livestock).

Why is manure management important on small farms?

Small farms are different than large farms, the challenges of managing manure nutrients are different but the principles are the same. Small farms may have fewer animals and sometimes several animal species on the same farm. Those farms could also have limited acreage and possibly lack the equipment necessary for spreading manure.

Michigan State University Extension recognizes the positive and negative impacts of manure.

Manure is a valuable resource on the farm as a great source of nutrients for crop production

Did you know that 59 percent of farms in the United States sell less than \$10,000 worth of agricultural production? There are more than 1 million operations selling less than \$5,000 worth of production.

If you look at the numbers

Manure Storage 101



Which option is best for your farm?

Acceptable method to store manure on small farms

Stockpiling

- Piling the solid manure and soiled livestock or horse bedding in a convenient location
- Using a plastic tarp to cover the stockpile will help to reduce odor and flies

Dry Stack

- Key components of a dry stack facility are the impervious floor and three walls used to contain the manure
- The cost for this type of facility can be moderate

Most common and most practical method of manure storage for small livestock or horse operations

Composting

- Composting reduces the amount of available nutrients, kills pathogens, reduces the odor and reduces the volume of manure and bedding
- The cost of this method of storage can be moderate to high depending on the complexity of the facility

Gaining in popularity

Manure Management

Important information for everyone, including small-scale livestock or horse farms. Using best management practices can help protect the environment.

59% of farms in the U.S. sell less than \$10,000 worth of agricultural products

A single **1,000** HORSE can produce 50 pounds of manure per day

There are **TWO** options for small farms when it comes to managing manure.

- 1. Spread it**
 - collect the manure and bedding daily
 - feed it in a spreader
 - spread it on cropland, hayfield or pasture
- 2. Store it**
 - make a stock pile
 - spread or haul it away
 - use it a later time

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and it can help to improve soil health.

Most farm owners do not realize the value of the manure that is produced on their farms.

When not managed properly, manure can pollute the environment. This includes ground or surface water pollution due to Nitrogen (N), Phosphorous (P) and Carbon (organic matter). Mismanaged manure can contribute to air quality concerns (dust and odor), pathogens in water supplies and presence of vermin.

Small farms can choose to spread or store manure.

There are two options for small farms when it comes to managing manure. Option one is to collect the manure and bedding daily, load it in a spreader and spread it on cropland, hayland or pasture. This option is time consuming and has to be done regardless of soil moisture, weather or time of year.

Option two is to stockpile or store the manure for a period of time. In this case, the manure could be spread or hauled away, and utilized at a later time.

Even though the number of livestock may not be large, enough manure will be generated to pose a problem if planning is not done.

For example, a 1,000 pound horse can produce approximate-

ly 50 pounds of manure per day. If kept in a stall, it may require 15-20 pounds of bedding per day. Manure in addition to bedding will have a volume of 203 cubic feet per day. In total, a stalled horse will require the removal of 60-70 pounds of waste per day. That results in 12-13 tons of waste per stall per year.

The annual stall waste from one horse will fill a 12 foot by 12 foot stall about 6 feet deep, according to extension Stall Waste Production and Management.

The capability to store manure reduces or eliminates the need to spread manure on a daily basis. Manure storage facilities also allow the farm owner to store the manure until it can be removed and used by other farmers, gardeners or landscapers.

For information about local storage options and other farming related questions please contact your local MAEAP technician, Mike McCarthy at the Chippewa Luce Mackinac Conservation District. 906-632-9611 ext. 101 or by email at mike.mccarthy@macd.org. To learn more about MAEAP and the Chippewa Luce Mackinac Conservation District visit our website at www.clmcd.org.