

Managing manure, land application during adverse weather conditions

Cool, wet weather can create extra challenges for land-applying livestock manure. Under normal conditions, time is limited for pumping manure storage basins and land-applying liquid manure after fall harvest.

When wet weather delays the harvest, producers and land-application services are encouraged to work together and be flexible. Good communication is extremely important. In all cases, producers and manure managers should contact their state or county feedlot program representative, and use all possible measures to mitigate the environmental impact of liquid manure storage and land-application during wet conditions. In most cases, solid manure can be temporarily stockpiled.

While planning ahead to be prepared for such situations is essential, many immediate tools are available to manage livestock manure during adverse conditions. All suitable measures should be used to avoid liquid manure storage basin overflow, and in keeping surface-applied liquid manure outside the 300-foot setback from sensitive features.



Helpful practices

- Begin to land-apply immediately on portions of harvested fields that have dried sufficiently, for example, on higher ground.
- Consider temporary stockpiling of solid manure until more favorable field conditions are present.
- Pump manure storage basins at least partially to avoid any overflow before winter and land apply the remaining manure in spring.
- Look around the area for other available fields from neighboring crop farmers, or other approved manure storage space.
- For better access to wet fields, fill tankers less than capacity.
- Reduce the impact of manure applied to the surface of wet or frozen soil:
 - Avoid steeper slopes – seek fields, or parts of fields with less than 6 percent slope for solid manure, 2 percent for liquid manure, or have greater than 30 percent residue.
 - Stay 300 feet away from sensitive features, such as waters and tile intakes.
 - Perform tillage along contours to create furrows to capture any potential runoff.

- Avoid flood or floodway zones.
- Keep application rate low enough to avoid runoff or ponding during application.
- Check with county regarding local ordinances.
- Report any discharges from land application or liquid manure storage area overflows to the State Duty Officer, 1-800-422-0798, and take immediate action to reduce environmental impact such as:
 - Creating temporary berms to stop discharge.
 - Temporarily plugging culverts and tile intakes to prevent manure inflow.
 - Soak up liquid with absorbent material such as hay, straw or wood shavings.
- Do not construct or modify your basin without approval from the Minnesota Pollution Control Agency (MPCA) or county feedlot officer.
- Do not store manure in unpermitted basins.



Be prepared, plan ahead

With an increase in heavy rainfall and precipitation events, manure management is more critical than ever. We cannot do anything about the weather, but we can be prepared to better deal with the impact of bad weather on manure management and land application. A little more investment in storage, conservation practices, and planning can be a very cost-effective form of insurance. It also reduces the risk of economic loss of nutrients from surface-applied manure without incorporation.

- Arrange to have a portion of land-application acres planted with small grains or other early harvest crops.
- Attempt some spring land application to create more fall and winter manure storage.
- Install vegetated buffers and blind tile intakes to alleviate 300-foot setback.
- Develop a contingency plan.
- Ensure that all land-application equipment is calibrated and in good condition.
- Expand liquid manure storage capacity.

For more information: <https://www.pca.state.mn.us/business-with-us/land-application-of-manure>