

# When you just have to do something

## Tips and considerations for short-term solid manure storage in the field

By Lilian Schaer

APPLYING MANURE IN THE winter, particularly the late winter onto frozen or snow-covered ground poses risks for the environment and can impact water quality as nutrients will run off when soils are frozen solid. Sometimes, though, circumstances make it unavoidable for farmers to have to do something with excess quantities of manure.

For solid manure, temporary storage in-field is one approved solution when barn storage is limited for bedded-pack manure from cow or heifer barns, or even calf hutches.

According to Christine Brown, Field Crop Sustainability Specialist with the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), the key to making it work with minimal impact on water and neighbouring properties is finding the best location for such a temporary storage.

Education and awareness around best manure management practices and reducing risks posed by winter nutrient application is the goal of the Timing Matters initiative led by Ontario's livestock commodity organization in partnership with OMAFRA.

Brown recommends considering a few key elements before making a final decision on where to temporarily store solid manure on-farm.

Dry matter content of the manure: the higher the amount of bedding in the manure, the more likely it is to stay where you've placed it.

Nutrient concentration: nutrients from

manure that is highly concentrated have a higher risk of leaching, for example. This means it's best to store manure with high nutrient levels on a concrete pad instead of directly on the ground so that runoff can be collected or prevented entirely by covering the storage area.

**Tile location:** Avoid tiled fields when looking for an ideal location for a temporary manure pile. If that's difficult, make sure your pile is a minimum of three metres (10 feet) away from the closest tile. Storage piles also shouldn't be placed near exposed bedrock.

**Soil texture:** Nitrogen leaching risks are higher with sandy or light textured soils, so try to avoid those when choosing a site for your temporary storage.

**Proximity to other properties:** Try to locate your temporary manure storage as far away from your closest neighbours as possible. Not only does it not look very attractive, but odour and flies could also pose problems. A good rule of thumb to follow is 100 metres from the edge of the field or 125 metres from the nearest residential building – this translates into an approximately two to three minute walk under normal conditions.

**Distance to water or surface inlets:** to keep manure out of the water, the same approach for neighbours applies to rivers, streams, catch basins or areas where you know the water will flow through during spring thaw or heavy rains. A three minute walk (a distance of approximately 150 m) to closest the water source will minimize

the risk of nutrients entering the water.

**To cover or not to cover:** It's often not practical to cover a temporary storage, but in some circumstances, even the use of a tarp can make a difference in ensuring nutrients stay where they are supposed to. A temporary storage of heavily bedded broiler manure with a high concentration of nutrients is one situation where the addition of a tarp cover will minimize the risk of nutrient loss.

**Storage time:** Ideally, manure piled in-field in the short-term should be applied to the land in the next available growing season. Temporary really does mean temporary.

In Ontario, temporary field storage of manure is regulated under the Nutrient Management Act and more in-depth information about the ins and outs of temporary storages can be found at

<http://www.omafra.gov.on.ca/english/engineer/facts/10-039.htm>.

As well, more information about manure stewardship and long-term nutrient management options is available at <https://www.farmfoodcareon.org/timing-matters/>, and Timing Matters representatives will be present at numerous agricultural and rural events over the winter months. 📍

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