



## March 2019

### Manure Scoop

In this month's [The Manure Scoop](#), we take another deep dive into yield goal and MRTN for nitrogen recommendations, focus on how the suggestions have changed with time, and what this may mean from a nitrogen budgeting perspective.

### Late Season Winter Manure Application

Winter application rules on liquid manure remain in effect for both frozen and snow-covered ground until April 1. As you remember, this law prohibits application of liquid manure from confined animal feeding operations with more than 500 animal units unless prior approval for emergencies is requested and received from the Iowa DNR. While the law doesn't apply to solid manure, producers and applicators are strongly encouraged to examine current soil and predicted weather conditions before applying manure.

Heavy snows throughout February make late-season winter manure application a riskier proposition. When it comes to winter manure application, finding good application windows is important to minimize potential impacts on water

quality. Most research findings have suggested most of the nutrient transport from winter application comes from rare, but large events where runoff from either snowmelt or precipitation occur quickly and rapidly and result in substantial amounts of runoff when the frozen soil has low permeability.

Large snow packs near the end of winter generally offer the greatest opportunity for larger runoff events to occur because as we get closer to spring, warm days where rapid snowmelt are more likely; as is rain and thunderstorms instead of snow. This, along with the shorter the contact time between the manure and the soil before such an event would occur. In general, contact time between the manure and the soil is a good thing as the nutrients in the manure tend to react and stick to soils, but these reactions take time and if the event happens shortly after application, we just won't have that opportunity.

Given the weather conditions we have had and the amount of snow cover on the ground, much of the state would be in a position where an application wouldn't be advised; however, the situation on your farm and your fields would dictate your specific needs. Hopefully, the coming days will provide some opportunity for snowmelt and soil drying to allow a window you are looking for to get the stockpiles used up and fields ready for spring.



Figure 1: Examine soil conditions and predicted weather conditions prior to applying manure to avoid impacting water quality.

### Preparing for Spring Manure Application Season

While the recent weather has reminded us that it is still most definitely winter in Iowa, spring will arrive quickly, and with it our next window for manure application. Given the trying conditions last fall had to offer, the need and demand for spring manure application may be higher than normal this year. As spring is normally a busy time on the farm, this means making sure you are prepared to move and act quickly when the right weather conditions arrive.

1. Get a sample. Manure is a variable fertilizer and knowing what is in it is important to making appropriate application decisions. Manure properties and air emissions can differ substantially between summer and winter and as a result nutrient concentration could be different than normal.
2. Check over your equipment and prep it for spring. To get the complete fertilizer value from manure, we need to know what we are applying, having a good uniform spread, and having the manure injected and covered in the soil, as a result spreaders have more technology than ever before. Making sure these are working before we get started is critical to get rolling quickly.

3. Communicate with your manure applicator. If you hire a commercial manure applicator, communicate early with them. Share a copy of your manure management plan and review which fields you think will be in suitable application condition most quickly.
4. Determine how much manure you need to get applied to make it to fall. For some, spring application may be a less common occurrence, and while it may not be possible to get a pit completely empty, setting a goal to make sure you have enough storage to make it to appropriate times in the fall is necessary to demonstrate you are treating the manure as a fertilizer.
5. Review your application strategies with your agronomic service provider or technical service provider. Perhaps you ended up surface applying last fall or are adding some spring application. How did this affect your manure application rates or the nitrogen fertilizer value we should expect the manure to offer?



Figure 2: Sample manure this spring to assist with application decisions.

## Events

[Three Options for Cleaning Barn Exhaust Air](#),  
Livestock and Poultry Environmental Learning  
Center Webinar

March 29, 2019, 1:30 pm

[Waste to Worth](#)

April 22-26, 2019, Minneapolis, MN