Applying manure after corn planting

Fears of crop damage are largely unfounded

By Lilian Schaer

LOOKING FOR MORE opportunities to spread manure throughout the year is a solution for farmers to alleviate the spring time crunch, especially in years when the weather is less than cooperative.

For farmers with liquid manure, particularly hog farmers, planting corn first and following up with nutrients later is one way to spread out the spring work load and give the crop a boost at the same time.

According to Christine Brown, Field Crop Sustainability Specialist with the

Drag hose application of liquid manure into standing corn improves nutrient use, spreads out manure application work load and helps prevent compaction.

Ontario Ministry of Agriculture, Food and Rural Affairs, applying liquid manure by the time corn reaches the V-4 leaf stage allows for timely planting with a longer application window. It also reduces compaction potential from taking equipment onto fields too early in spring before the ground has had a chance to properly dry off.

"Consider planting at least some of your corn and then drag hose the liquid manure after planting but sometime before the corn gets to the fourth leaf stage," she advises. "Not only does this improve nutrient use efficiency, but you'll improve yield and spread out some of the manure application workload as well as helping to prevent compaction."

Larry Bearinger of Pumped Environmental Services has been specializing in land application of liquid manure for 25 years in the Oxford and Brant county area. In the 1990s, irrigation guns were often used to apply liquid manure onto growing crops. In fact, according to Bearinger, about a quarter of his spring application work used to be done after corn was planted.

Today's drag hose systems aren't as widely used, largely over concerns of damage to the emerging crop, which Bearinger says are unfounded.

"Everybody has a fear the corn will bend over, but that's not true as long as you drag hose early enough," he says. "The V-4 stage is the cut off. After that, the corn plant becomes sturdy and rigid and will snap, but before, you can drag hose over emerged corn plants and do minimal damage."

In fact, research by Glen Arnold at Ohio State University looking at the impact of drag hose application at different growth stages has confirmed that application up to the V-4 stage will not negatively impact the crop.

Applying liquid manure into corn works well for producers with sufficient storage so they don't have to rush to empty a manure tank in spring, and spreading into corn is a particularly handy option for hog producers who don't have forage crops to spread liquid manure onto like dairy farmers do, Bearinger adds.

Loam and sandy soils are especially well suited to drag hose application, but whether farmers apply themselves or hire an applicator is a decision that depends on the size of each operation and available labour.

"We pump up to three kilometres through hoses, but for the average farmer to own that much equipment doesn't make sense," he says. "It also depends on how much labour you have and whether you can take on this extra job yourself labour-wise."

Although the economics of in-crop application will vary based on manure types and their concentration, there is a cost advantage for farmers of this technique compared to early spring, pre-plant application regardless of manure type.

"Consider the reduction on nitrogen requirements for side-dress timing and the cost savings of commercial nitrogen you haven't applied, along with higher yields and reduced soil compaction," notes Brown.

This isn't yet an option that will work for every farm, but new technology is emerging that will let farmers apply more manure throughout the growing season and on to different types of crops.

More information about manure stewardship and long-term nutrient management options is available at https://www.farmfoodcareon.org/timing-matters/.

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