



Western  
New York

CROP MANAGEMENT



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## If the Risk is High, Don't Apply!

*By Rhonda Lindquist*

With warmer weather finally on the way, we start to think about that sweet smell of manure. Okay, maybe the smell is not so sweet, but getting it out of the pit and onto the field after a long winter is a good feeling.

We all know that spring can be one of the most challenging and riskiest times of the year to spread manure because of the melting snow and rain that can carry manure into our ditches, streams, lakes and groundwater. Manure-contaminated runoff not only threatens water quality, it reduces the value of manure as a crop nutrient.

If you are unable to avoid spreading when runoff conditions are high, you need to use extra caution, and pick fields that are low-risk. A low-risk field is one that has a low chance for a runoff event. Field characteristics include at least moderately well-drained soil, low soil moisture, no adjacent waterways, no swales that lead to a critical area, adequate vegetative cover if surface applying, and no ponding of water.

Even with low-risk fields, strategize what practices you can implement to further reduce the potential for springtime runoff. It may be necessary to increase your setbacks from watercourses and reduce your application rates when applying manure during these types of conditions.

Remember, hauling manure becomes even sweeter when you have a plan ahead of time.



## What's your manure IQ?

by Christina Curell, Michigan State University Extension

A statement by former Michigan State University Extension educator Natalie Rector noting that “with rising nitrogen prices, manure nutrients are more valuable than ever,” is as true today as it was when she said it five years ago. Manure contains nitrogen, phosphorus, potassium and many micronutrients, but because it doesn't come in a fertilizer bag with a guaranteed analysis, some producers don't make use of this resource. How much do you know about manure's value on your farm? Take this quiz to find out.

**True or False:** Manure spread during the winter and not incorporated into the soil provides very little nitrogen for the next crop.

**False.** Winter-applied manure has nitrogen value. When manure is spread during cold weather on soil that contains moisture, much of the nitrogen is held in the soil and is available in the spring. The nitrogen in manure comes in several forms, including ammonium ( $\text{NH}_4\text{-N}$ ) and organic nitrogen. Conversely, manure that is spread during hot weather on dry soils (such as on August wheat stubble) loses much of its ammonium to the air through a process called volatilization. That is less likely to occur during cold weather. Manure's organic components break down slowly. As soon as soils warm up in the spring, a portion of the nitrogen is released and is readily available to the growing crop, even from manure that was surface applied during cooler weather.

**True or False:** Manure spread in March and April will not be available to crops in June.

**False.** As the soil warms up in the spring, 25-50 percent of the organic nitrogen converts to a form of nitrogen that is readily available to the growing crop.

**True or False:** Manure composition is too variable to be a reliable source of crop nutrients.

**False.** Manure is more variable than purchased fertilizer, but it can be managed for efficient crop production. Manure tests will estimate the amount of nitrogen, phosphorus and potassium that can be credited against fertilizer recommendations. Agitating manure in storage prior to hauling it to the fields improves nutrient uniformity. Take several manure samples while emptying a storage system

to determine nutrient variation between the first and last loads.

It is important to spread manure as uniformly as possible. If an applicator spreads manure at a steady speed, and avoids random skips and overlaps, manure nutrients will be consistent across the field.

The exception is sand-laden manure stored in a pit, which varies significantly in consistency and nutrient composition from beginning to end of emptying the manure storage facility. Skimming and hauling means the first portion is pumped off as a liquid, a sloppy mix is removed in the middle and the remaining manure removed by tractor-loader and spreader. Take three manure samples from these three different fractions to evaluate the concentration of nutrients at various levels in the manure pit.

**True or False:** Manure nitrogen is in a form that is not available to plants.

**False.** Crops cannot tell if nitrogen is coming from fertilizer, livestock manure or green manure cover crops. As mentioned above, manure contains several forms of nitrogen (organic and ammonium), and all forms of manure nitrogen ultimately convert to available forms of nitrogen for plants.

**True or False:** Manure increases soil organic matter and tilth, but it should not be considered a nutrient source. Full rates of commercial fertilizer should be applied to assure good yields.

**False.** Manure is a valuable nutrient source that should be credited against fertilizer recommendations. There is a wide range in manure value, so it's important to take samples as you empty manure pits or during daily haul. This will provide useful information for making the best decisions at fertilizer sidedress time. Liquid manure systems are a valuable source of nitrogen, phosphorous and potassium while straw-packed manure has less nutrient value. Manure application rates have a major effect on the amount of nutrients provided to the field. There is a big difference in nutrients per acre when manure is being applied at 3,000; 6,000 or 9,000 gallons per acre. Producers should routinely test soil and manure, and calibrate manure application spreaders.

## Are You and Your Corn Planter Ready for Great Yields?

By Dave Shearing, from various sources

Corn planters operated out of adjustment and at too high a speed can lower yields up to 20 bushels of grain or 4 tons of silage per acre. Tire pressure also has a profound effect. Why does this happen?

Uniform seed placement and correct depth are very important. Poor seed depth and spacing will reduce yields and waste great genetics, good soil fertility and effective herbicides. Doubles or triples cause competition for sunlight, nutrition and water. Crowding results in barren plants or runty ears. This lowers grain yields and corn silage quality and yields.

A planter set to drop 30,000 seeds per acre can easily do it and still do a lousy job. If 5,000 seeds are in the form of doubles and triples or come up more than 48 hours after the majority because of poor depth control, they are essentially weeds!

### Take these steps in your shop to ready your planter for picket fence stands:

1. Get out the operator's manual and find the correct tire pressure for your planter.
2. Finger pickup and vacuum units spit out seed as fast as a submachine gun spits out bullets. Minor wear can make them perform imperfectly. Your operator's manual tells how to care for these planter components.
3. Backer plates, brushes, springs, fingers and belts all need to be checked every year. To save time checking parts, take them to your dealer. There are also some very good independent companies that do a great job of maintenance on planter components at a reasonable price. CaseIH planters have wear grooves in their seed disc; if they are gone, replace them. If the singulater springs have lost their springiness, change the group of springs. Seed brushes should be replaced if they are worn badly or they will not perform.
4. Disc openers should be at least 14½ inches in diameter. (CASE IH openers are slightly larger, but they should not wear more than 1/2 inch.) When sliding business cards in at the 4 o'clock position, they should touch at least 1½-2½ inches apart. Make the adjustment on the arm.

THIS WILL PREVENT a W shaped seed furrow. In CaseIH planters, check the firming point. Do not hesitate to replace it. This insures a good seed furrow.

5. Gauge wheels need to be adjusted so that they slightly rub the disc openers. Ragged seed walls cause uneven seed depth, resulting in uneven emergence.
6. Check the seed tube, as well as mud scrapers, for wear.
7. Shake the entire seed unit to see the amount of wear on the bushings. Worn bushings will cause emergence problems because of an inability to keep the unit level. This causes jerking in the drive, which results in uneven seed drop.
8. Closing wheels, no matter what type, should be centered on the seed trench. Ensure that closing wheels have good bearings, are unbent, and apply even pressure. If you have spiked closing wheels, the tips should be no closer than 2 3/8 – 2 ½ inches apart. They should not penetrate the soil beyond the U.

The closing wheels have the beveled side in and the flat side out. These 13-inch wheels were originally residue trash wheels designed to go in front of the planter. Therefore, you put the one marked L on the right side and the one marked R on the left side. If you have one spiked wheel, it will be a 15-inch wheel, and the rubber or cast wheel should be 1 7/8 inches from the spiked wheel.

There are many closing wheel variations on the market, and, if installed according to directions, they do the job well. Some work better in particular situations.

9. Check that chains and drivers are taut and running smoothly.
10. Down pressure springs should be sound. Have spares available.
11. Measure the distance between units. They should be 30 inches apart. If they are not, they have slid or are twisted. This can cause havoc in a lot of areas such as depth, singulation, row width, and chain lineup.

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**The following practices in the field will help ensure picket fence stands:**

1. Make sure the planter frame is level when it is in the ground. Non-level planters can lead to several unexpected problems:
  - ◆ The fertilizer coulters bearings may be so close to the soil that they catch and pile residue.
  - ◆ Rigid residue managers may dig trenches or canals that force the depth gauge wheels to ride high and put the seed in shallow.
  - ◆ The rear closing wheels are high and just don't close the seed slot, hindering emergence. Many times this occurs when the hitch is too low or the tractor tires have worn down from last year. Sometimes mellowness of the field will affect this.
2. Parallel arms should be close to level when the planter is in the ground to achieve maximum benefit from down-pressure springs. Check bushings on arms and replace if they are sloppy.
3. Maintain frame height between 20 and 22 inches above the ground.
4. If the frame and units are not level, it is better to have them a little higher in front and lower in the back. Never the opposite! If the units are low in front, the rear packer wheels may not perform well and emergence will be hindered.
5. A no-till coulters or center zone-till coulters should be one-half inch shallower than planting depth. Some farmers have taken the no-till coulters off and feel they get better stands because of less bounce.
6. To prevent fertilizer burn, the fertilizer coulters should be around 4 inches deep and at least 2 inches away from the seed trench. Check this often! Every year a few people have one get bent or slide over and burn one row in a field or two. This makes for a very unhappy farmer. (Note: There are exceptions to this rule. If the total of N and K is more than 90#/acre, the fertilizer should be moved further from the seed furrow.)

If you have been diligent in completing the checklist, you are ready to start planting. Now we just have to wait for the weather to cooperate as well.

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# Neighbor Relations

By Rhonda Lindquist

Mud on the tires, manure odors in the air, noise, and slow moving equipment all go hand in hand with the daily grind of life on farms this time of the year. Spreading manure and planting crops are two key components of agriculture sustainability in our region. Unfortunately, not everyone in our community understands these essential activities on farms.

Many of our neighbors moved into the country seeking pastoral views and fresh air. Their lack of understanding about the activities on farms can be one of the driving factors for complaints about the noise, odors, and mud on the roads. Other common complaints are related to environmental impacts and the ways that farming can affect the water they drink. These stakeholders are important to your farm and to farming in general.

Building better relationships with our neighbors and community members can help minimize conflict with them. The best time to build and maintain a positive relationship with them is before something happens. Establishing a trust-based relationship will buy a lot of goodwill if an accident occurs. How they view your farm can make your business more successful or create constant conflict.

Have you given any thought to your response if confronted by an angry neighbor? Don't get caught up in the "heat of the moment" and say something that you will later regret. It can only lead to further conflict. While there's no one-size-fits-all approach to dealing with complaints, it is better to be prepared and have a plan. Once a plan is established, don't stop there. Communicate and review it with your employees.

### Steps to help you build a positive relationship:

- Establish a communication plan
- Listen – the most important step in good communication
- Respect their opinions
- Identify their needs and desires
- Develop trust by always telling the truth
- Ask them for their ideas
- Meet and exceed all local, state, and federal regulations
- Be proactive – don't wait for a problem
- Be flexible – be willing to adapt and improve your plans

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## CleanSweep Reminder

Registration is underway for Spring 2014 CleanSweepNY in DEC's Region 9 (WNY). Due to low initial registration numbers, the **deadline has been extended to April 15<sup>th</sup>**. This is your chance to dispose of unwanted/unusable pesticides and triple rinsed plastic HDPE (#2) pesticide containers without charge (minimal charges apply for non-pesticides such as paints/oils/antifreeze/cylinders).

Collection sites are NYS DOT facilities and will be held on the following dates:

Tuesday, April 29<sup>th</sup> in Salamanca  
 Wednesday, April 30<sup>th</sup> in Warsaw  
 Thursday, May 1<sup>st</sup> in Lockport

If you are interested, please get an application to Albany as soon as possible. Applications are available through our office or you can find information online at <http://www.cleansweepny.org/>.

**Without greater participation, the event could be cancelled!**

## Water Quality Improvement Meetings Announced

The Soil and Water Conservation Districts of Monroe, Genesee and Wyoming Counties will be hosting two presentations on water quality improvement projects completed in the Oatka Creek and Black Creek Watersheds through the Great Lakes Commission grant. These presentations will highlight erosion and sediment control projects on agricultural lands and will showcase the amount of soil saved through this work. These meetings will be great opportunities to learn about agricultural best management practices and see what local farms have been doing to help protect water quality in our area.

All are encouraged to attend. Refreshments will be provided. Please contact the designated individual if you are planning to attend so that plenty of food is available.

### Oatka Creek Watershed Meeting:

**When:** April 21<sup>st</sup> at 6:00 pm

**Where:** Pavilion Fire Department Rec. Hall, 11302 Lake St, Pavilion, NY 14525 (at the intersection of Rt. 19 and Wyoming Road in Pavilion)

**RSVP:** Kim Falbo, Wyoming Co. SWCD (585) 786-5070 ext. 121, [kfalbo@frontier.com](mailto:kfalbo@frontier.com)

### Black Creek Watershed Meeting:

**When:** April 29<sup>th</sup> at 5:30 pm

**Where:** Chili Highway Garage at 200 Beaver Road, Chili, NY

**RSVP:** George Squires, Genesee County SWCD- (585) 343-2362, [george.squires@ny.nacdnet.net](mailto:george.squires@ny.nacdnet.net)



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