A recent newsletter of the Northeast Dairy Producers Association printed an open letter to dairy producers from a dairy industry water quality work group formed to address concerns over numerous manure related well contamination and runoff events that occurred in early 2014. The water quality work group consists of several dairy producers drawn from NEDPA and NY Farm Bureau membership, as well as staff from those organizations, a CAFO planner, and PRO-DAIRY and NYS Soil and Water Conservation Committee staff in an advisory role. The letter is an appeal to all dairy producers to do what they can to reduce off-site movement of manure after land application. The piece also includes a supporting article on manure related beneficial management practices by PRO-DAIRY specialist Karl Czymmek.

**Safe manure application practices for winter and spring 2015 and beyond**

While OSHA inspections have had a lot of farms polishing up their safety programs and training, this letter is about another type of safety. The NY dairy industry needs to remain vigilant about keeping manure in its proper place: on cropland where it belongs.
The winter and spring of 2014 resulted in dozens of dairy manure-related water quality complaints filed with DEC, an unusual and alarming occurrence for the dairy industry. These were on farms of all sizes. It is clear that widespread cold and snow were main contributors to these problems. All farms must prepare themselves for the possibility that New York weather patterns are changing. Whether back-to-back hurricane related floods, frequent freeze/thaw patterns or prolonged deep frost, better preparation is needed to make sure farm nutrient management plans are getting the job done. Farms need to develop, implement and annually update a sound nutrient management plan for fields and farmsteads.

The farm discharge incidents from 2014 have come at a time when the next CAFO Permit is being put together and issued by the state environmental agency. These collective water quality incidents in 2014 are driving the State to include stricter regulations in the upcoming CAFO permit. If we, as dairy farmers, do not take action to help prevent farm discharges, others with differing opinions will do it for us and permit regulations will continue to ratchet up. Every dairy farm across the industry needs to give serious attention to manure management on their farm and raise awareness of this issue in their own circles. The future of our industry depends on it.

NEDPA has put together a water quality workgroup with representatives from NYFB, the planner community and other stakeholders to deal specifically with this important issue that is affecting the dairy community and shaping what the next CAFO permit will look like. New York’s dairy farms are fortunate to have abundant water resources as a foundation to build a strong and growing industry. Some people outside the dairy industry are questioning the environmental stewardship of our family farms and are calling for more rigorous farm regulations.

Karl Czymmek, PRO-DAIRY Crop and Environmental Specialist, has developed a list of practices that can improve manure management at the farmstead and in the fields which you will find below. We ask every dairy farm family to look at this article as part of the first steps toward proactively improving their farm nutrient management program.
Reducing risk of manure loss

By: Karl Czymmek

There are many facets to a sound manure management program. Probably one of the most important tools is to have enough storage to handle typical weather and soil condition challenges. The right amount of storage is different for each farm or region, but if every year it seems like your farm is up against the wall and has to make risky manure applications or risk an overflowing storage, that is a sure sign of needing more storage, or better management of what you do have. Another common feature for success is that manure management duties are clearly assigned in an operation and the lead person actually has time for and takes responsibility for doing the job properly. This person strives to do a better job every time the crew goes out and also makes sure that custom applicators are doing things correctly as well. The field crew is trained to look for problems, understands how to get the right rate, where and how to deal with no spread zones and to call for help and knows how to implement an emergency spill plan as soon as problems are found. This level of preparation can go a long way to reducing or preventing environmental contamination and related fines, not to mention bad press and lost time due to unplanned clean up and paperwork.

Regardless of storage circumstances and staff training, there are other practices that can be employed. Some farms separate solids and store them elsewhere or reuse for bedding. This reduces solids accumulation in storage and provides incrementally more storage space for liquids. Another approach this fall could be to clean out accumulated solids to increase existing storage capacity. This past spring, I heard of several farms that traded storage space: those with full storage arranged to take manure to a neighbor with extra space with an agreement to haul it back out at a later date. Farms with storage covers have noted significant reduction in manure volume not only due to avoided rainfall, but drifted snow can be pumped off when it melts too. Storage covers could be used more widely and there have been some cost share opportunities. Many producers have
constructed satellite manure storage facilities (often with underground transfer pipes) so that manure is close to large blocks of land for application when conditions are right.

There has also been significant investment in drag hose application technology. This allows for placement of manure below ground in many circumstances, resulting in a much lighter community footprint by reducing odors as well as truck and tanker traffic. Producers tell me that drag hose systems are a MUCH more efficient way to move manure, especially after the crew figures out how to manage hoses and system layout. Even without satellite storage and drag hose systems, there are less complicated ways to apply manure in a safer manner. Mixing manure with soil will reduce manure runoff, so tillage can be an important measure where that fits with other farm goals. Applying manure to fields with good soil cover can help reduce risk of runoff too. Avoid spreading when weather conditions are calling for rain or snowmelt. Fresh manure has a way of running off and the odors are often what people notice first in well contamination situations. The period from late February through early April seems to be especially challenging in many, though not all years and locations. Sensitive fields should be avoided when possible especially if frozen or snow covered and warm weather conditions are forecast. Runoff is very possible when soil conditions are wet, and the risk of compaction is much greater. Keep in mind that adding 10,000 gallons per acre of liquid manure is equivalent to nearly 0.4” of rain, making runoff risk that much greater. Manure application when tile outlets are flowing can be a problem. Outlets should be monitored and operations stopped immediately if outflow becomes cloudy. All farms should have last resort, emergency spreading locations for tough conditions. These should be selected based on farm experience and talking with a CAFO planner or conservation professional from SWCD or NRCS. Fields that are fairly level, drain internally or do not have nearby ditches or streams are prime candidates.

I strongly encourage every farm to focus more management time on how to improve manure application results and those with a CAFO planner to spend time with that person to develop a stronger manure runoff risk management plan for their farm. If not already in
progress, it may be impossible for most farms to get more manure storage constructed for winter 2015, but see what your farm can do to reduce the risk. In recent years, the NY dairy industry has received lots of attention and has historically had strong public support. It is more necessary than ever to maintain this support and improved manure handling is a significant part of that.

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