Crane Service Requested

November 2012 Issue 4

Changes Coming in Nutrient Management

Two significant changes that will impact nutrient management plans are underway. First, UW Extension is releasing a revised set of fertilizer recommendations in late November. The revisions are based on research conducted over the past 20 years, and reflect more recent yields and crop removal. The amount of fertilizer needed (and therefore, manure) will change for some soils but not others. Farmers can use either the new or old for the 2013 crop. More information will be presented at the annual meeting.

The second change is a committee is forming to revise the 590 Nutrient Management Standard. PNAAW is applying to have a board member on the revision committee.

Drag Line Meter Calibration

We are currently putting together a list of firms that provide flow meter calibration services. As a reminder, calibration is required as a part of the PNAAW performance standards (Gold, Silver, Bronze). If you are aware of any other firms besides those listed below, please let Kevin Erb know. Neither PNAAW or UW Extension endorse any firm for calibration services. The firms we are aware of include:

- Puck Custom Enterprises, Manning, IA - 712.662.2098
- Phil's Pumping and Fab, Chilton, WI - 920.849.2458
- Taylor, WI - 800.833.5812
- Norwood Young America, MN - 800.833.5812
- Jolivette Hauling, Norwalk, IA - 715.556.8014
- Silver, Bronze)

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Non-Enclosed Manure Storage Safety Tips

Injuries and fatalities occur in confined space manure storage that are enclosed, such as beneath animal quarters; or below-ground reception and pump out pits; and in non-enclosed earthen, synthetic, or concrete lined manure storage. Non-enclosed manure storage is open to the atmosphere but may meet the definition of a confined space in terms of occupational safety and health based on storage design and employee exposure to hazards.

In the case of non-enclosed manure storage, hazards may include:

- A thick liquid and floating crust that make swimming, buoyancy, or even moving around very difficult.
- Steep and slippery slopes that can make getting out of manure storage difficult or impossible.
- An accumulation of hazardous gases (primarily methane, hydrogen sulfide, carbon dioxide, and ammonia) released from manure due to movement, agitation, removal, or addition of manure to storage.
- Localized layers of hazardous gases existing above manure surfaces, especially on hot, humid days with little or no breeze.
- Not having sufficient oxygen to breathe if a person is ‘treading in manure because of inability to get out.
- Not being able to see into depths of manure like you can with clear water.
- A slow reaction time for adequate emergency actions because of site isolation and remoteness.
- Potentially hazardous equipment in and around the manure storage.

Safety guidelines to follow:

- Make sure everyone near manure storage structures understands the hazards that exist, including symptoms and effects that the various manure gases have on their health.
- Explosive gas may settle in pockets near where agitation or pumping is occurring. No smoking, open flames or sparks should be allowed.

Non-enclosed manure storage should be assessed to determine employee exposure to safety and health hazards.

Non-Enclosed Manure Storage Safety Tips, cont.

- Make sure the non-enclosed manure storage has a fence installed around the perimeter and access gates are locked to keep unauthorized personnel from entering the area.
- Post warning signs including manure drowning hazard signs and “Danger Manure Storage” or “Danger Keep Out,” or “Danger Keep Away.” on all sides of non-enclosed manure storage. If possible, these signs should be located by gates.
- Keep bystanders and non-essential workers away from non-enclosed manure storage during or other accessible areas during when pump out operations are in progress.
- Wear a safety harness with life-line attached to a safely located solid object or anchor at any time you enter the fenced in area of non-enclosed manure storage. If retrieval is needed, this equipment will improve the possibility of a successful rescue.
- Never work alone. The second person’s role is to summon help in an emergency and assist with rescue without entering the manure storage.
- Move slowly around unenclosed manure storage as the ground can sometimes be uneven and may cause a person to trip or stumble.
- Understand equipment being used and have emergency shut-down procedures prepared.
- If equipment malfunctions or maintenance is required during agitation or pumping of the manure, shut all equipment off and remove it from the manure storage before servicing or repairing.
- If you feel unsure or uncomfortable with what you are getting ready to do near the manure storage; wait a moment and reconsider the action, contact a supervisor or farm manager, and review the situation before proceeding.
- Be prepared to call 911 in case of an emergency. Being prepared includes providing specific directions to the site of the emergency, accurately describing the incident, and number of victims.

Adapted from Open Air Manure Safety Storage Tips, Penn State University, June 2012. Authors: Dennis J. Murphy, Extension Safety Specialist, Agricultural and Biological Engineering; Robert Meinen, Senior Extension Associate, Animal Science Department, David E. Hill, Senior Extension Associate, Agricultural and Biological Engineering.

UW Madison, Biological Systems Engineering Contributors:
- Cheryl A. Slikhsa, Interim Director/ Agricultural Safety Specialist, UW CTR for Agricultural Safety and Health
- David Kammel, Extension Agricultural Building Design Specialist
- Brian Holms, Extension Farmstead Engineering Specialist
- Rebecca Larson, Extension Bio-Waste Specialist

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