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Tips on fencers and trainers

Most farms still use some sort of fencer, trainer or both. While making a visual inspection during a stray voltage investigation, we often find that fencer/trainer systems are incorrectly installed.

When we are testing to find voltages of more than one volt in cow contact areas, we sometimes discover fencer/trainer systems that are capable of putting out thousands of volts.

Keeping your animals protected from inadvertent shock from these systems is important. Here are some actions to take to mitigate problems with your installations:

- Use a ground system for each fencer and trainer consisting of at least two independent ground rods spaced approximately 15 feet apart and located 50 feet or more from farm buildings or other metallic systems. The output side of cow trainers and electric fencers should not be grounded to other electrical system grounds, stanchions or water pipes.
- Use special high-voltage lead-out wire between the energized terminal of the fencer/trainer and the properly insulated fence or trainer wire.
- Protect trainer insulators from contamination when white-washing the barn. Dirty insulators track to ground.
- Locate the fencer energizer away from farm buildings, protect it from weather and serve it via a properly grounded, dedicated power circuit. The fence itself acts as a big antenna to lightning, so you certainly don't want it in the barn. Also consider installing lightning surge protection between the fence and the energizer output.

If you have questions about fencers and trainers, contact your We Energies agriculture representative.

Silo gas dangerous in bags, bunkers

By Craig Saxe, Juneau County UW-Extension

When bunkers and bags were less common and every farm had an upright silo, cautionary articles and fact sheets came out often about the dangers of silo gas.

Fast forward to today and ask yourself what's changed? Sure, we use different storage systems today, but that dangerous gas is still being produced, and there are similar dangers around bunkers and bags.

The primary component of silo gas is nitrogen dioxide. This highly corrosive, toxic gas mixes with moisture, such as moisture in the lungs, to form nitric acid. Low concentrations of nitrogen dioxide will cause a burning sensation in the nose, throat and chest. Heavy concentrations can cause death within seconds. Even brief exposures to moderate concentrations can cause extensive lung damage and pneumonia.

Because silo gas is heavier than air, it will settle on the surface of the silage and flow down to nearby low areas.

Even though a person might feel better after getting fresh air, he or she can still die many hours later, as fluid collects in the lungs.

Silo gas forms within a few hours and up to three weeks after fresh plant material is added to the silo. It is a problem in conventional, non-airtight silos. However, silo gas also is formed in silage bags and covered horizontal bunker or pile silos.

Be careful when opening up bags or bunker and pile silo covers, as gas may be trapped within them. If someone goes out to repair the plastic covering on bunker or silo piles within the first three weeks after filling, take caution to reduce potential exposures from trapped gas under the plastic.

If a bunker or pile silo is not immediately covered, the nitrogen dioxide may settle out around these silos. Serious lung damage can occur from a slight exposure.

To prevent silo gas exposure in upright silos, stay out of the silo for three weeks after filling. This is the peak period of silo gas formation. Keep the silo room closed off from the rest of the barn, and ventilate it to remove any gas that flows down the chute.

Before you enter the silo for the first time, run the forage blower for 30 minutes, and leave it running while inside. Ventilate the chute and silo room as well. Have someone with you outside the silo to go for help if needed.

For bunker and pile silage bags, immediately cover them over when done harvesting. Observe for any signs of gas when repairing plastic or working around the area. Use caution when opening the plastic during the first three weeks after covering or sealing the bag, and do not puncture bubbles in plastic.

If exposure to silo gas occurs, see a doctor immediately and explain what happened. Remember, exposure can be fatal.

Much of my information is based on work done by agricultural safety and health specialist Cheryl Skjolaas and her counterparts at the UW-Center for Agricultural Safety and Health. To learn more about silo safety, go to http://fyi.uwex.edu/agsafety or call 608-265-0568.

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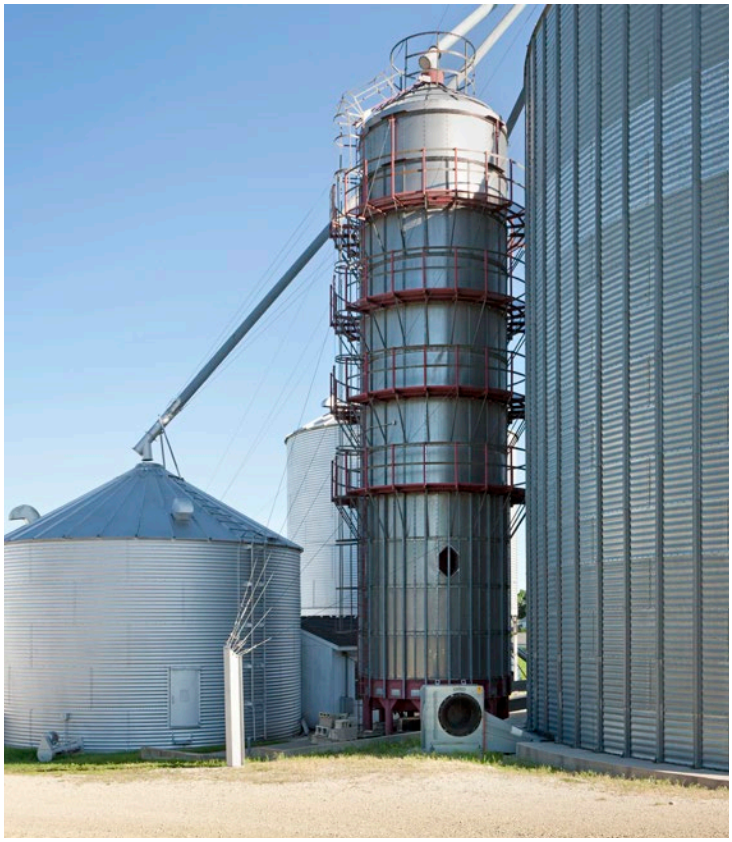

Farm laundry systems

Many dairy farms use cloth towels to prep cows prior to milking. These towels are washed and dried prior to being reused. If you use cloth towels, here are some suggestions to help reduce your operating costs:

If you are doing more than four loads a day and are using a residential washer and dryer, you may want to consider upgrading to commercial units. The commercial grade washer has an extraction cycle, which removes more water during the spin cycle than a residential unit, saving energy in the drying cycle. A front-loading, commercial washing machine takes half of the water per pound of laundry washed than a residential unit requires, saving money on water-heating costs.

A commercial-grade dryer also saves money. Since most residential units operate on electricity for the heating element, you can save on a commercial unit by switching to a natural gas model.

Energy costs on a natural gas unit can be less than half of what an electric model costs. Commercial units also can handle much larger loads of towels and typically will dry larger loads faster.

Inspect livestock waterers before heating season begins

Before each winter season begins, you should ask your electrician to perform the following inspections with the disconnect switch in the "open" position:

- At the disconnect switch, make sure the fuse size matches the heater load. Never use an undersized or oversized fuse.
- Check the waterer's internal wiring for deterioration. Repair or replace as necessary.
- Make sure the waterer is grounded according to the manufacturer's recommendations.
- Check all electrical connections to the heating elements and at all grounding points to be sure all are tight.
- Check all insulation inside the fountain. Replace if it is loose or damaged. Carefully fit each piece in place with adhesive and a good mastic sealer for full coverage. Make sure inspection doors are insulated and fit tight.
- Check the seal between the base of the unit and concrete. If any open areas or cracks are found, recaulk with a good sealant to prevent sludge or water entering internal areas.
- Be sure lids or floats operate freely so animal access to water is not restricted. If only one side of a two-trough waterer is needed, close unused side and insulate.

RECIPE CORNER

Pecan Pie Minis

2/3 cup butter, melted and slightly cooled

1 cup brown sugar, packed

2 eggs, beaten

1/2 cup all-purpose flour

1 cup chopped pecans

Heat oven to 350 degrees F. Combine butter and sugar in medium bowl. Add eggs; mix well. In separate bowl, stir flour and pecans together; add to butter mixture until just moistened. Fill greased and floured mini-muffin cups 2/3 full. Bake at 350 degrees for 18 to 20 minutes. Immediately remove cookies from pan; transfer to wire cooling racks.

Makes about 2-1/2 dozen.

Enjoy this favorite recipe from the We Energies archives. For more recipes, visit www.we-energies.com/recipes.

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