Safety and Silage Making

Silage making has the potential for causing serious accidents. As with any operation involving large equipment, the key to safety begins with prevention. This article presents and describes the precautions to take to avoid injury during harvesting and while working on or around silos.

Safety rules for silage harvesting equipment/operations:

- Properly maintain the equipment. Poorly maintained equipment will not function properly, which increases the risk of an accident.
- Study the operator's manual before each harvesting season, especially the safety instructions.
- Make certain that all guards and shields are in place.
- Always turn off equipment before making any adjustments. Never try to adjust or unclog a machine while its parts are in motion.
- Space tractor and equipment wheels as far apart as possible to increase stability.
- Make certain the RPM of the tractor's PTO (540 or 1,000 RPM) match the design RPM of the equipment.
- Inspect the field for stumps, stones, washouts, ditches, and other obstacles which might damage the equipment or cause an overturn.
- Never permit riders
- Keep children, uninformed adults, and pets away from the machinery.
- Wear close-fitting clothes and sturdy slip-resistant work shoes
- Never operate equipment if you are ill, tired, or have alcohol or medications in your system. You must stay alert.

Safety rules for working around silos:

- Wear slip-resistant shoes; crepe or rubber soles are much safer than leather or synthetic material soles.
- Always have one firm hand and foot hold.
- If you must do some work high up on a silo, wear a safety belt secured to a rung of the ladder.
- Keep others away from the bottom of the ladder, should a tool or part slip and fall.
- Do not climb a silo if afraid of heights.

Silo ladders are perpendicular and the rungs do not provide the same foot hold as a regular ladder set at an angle. Climb slowly with secure holds. Practice descending from low levels. Many people find the descent from a silo more difficult than the climbing.

Silo Gases:

During silo filling and for about 2 weeks after, take special care when entering or working around a silo. Protect yourself and your livestock from injury and death due to silo gas. The fermentation of green plant material produces nitrogen dioxide. After more oxidation and contact with water, such as the moisture in the lungs, nitrogen dioxide turns into highly corrosive 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 moderated concentrations can cause extensive lung damage and pneumonia.

Carbon dioxide is produced in quantity in the silage fermentation process. It is odorless, colorless, and tasteless and is 53% heavier than air; thus, it also settles into low spots. It is not toxic, but it displaces the air, lowers the oxygen level and causes a person to gasp for air and become asphyxiated (death from a lack of oxygen). Follow these precautions to reduce the danger of silo gas:

- Silo gas forms shortly after filling and persists for 2-3 weeks. Stay clear of the silo for at least 3 weeks, and even after this time, run the forage blower for 15 to 20 minutes with the door closest to the top of the silo open before entering the silo.
- Beware of bleach-like odors or yellowish-brown fumes at the silo base, the telltale signs of nitrogen dioxide.
- Ventilate silo feed rooms with open windows and fans during the 3-week danger period. Keep the door between the silo feed room and barn closed tightly to protect livestock.
- Properly adjust the distributor so that silage will be well-distributed in the silo and will not require anyone entering the silo during or after filling.
- Keep children and visitors away from the silo area during the danger period.
- If you should experience even slight throat irritation or coughing around a silo, move into fresh air at once. See your doctor immediately if you suspect you've been exposed to nitrogen dioxide.
- If you must enter a silo during the 3-week danger period, wear an approved, self-contained breathing apparatus and ventilate the silo for 20 minutes before entering. You should also be attached with a lifeline to someone outside the silo.

(Edited from a composite article by the University of Wisconsin)

Interested in discussing topics in this newsletter, or want to do a better job feeding and managing your cows?
Call us! Our goal is to help you - the W-S Feed commitment!

VOLUME 5 – Number 9 – September 2015

THE TEAM FOR RESULTS!

QUALITY PRODUCTS & SERVICES

Plan Ahead!

Some like it hot and some like it cold, but we have to take whatever comes with the change of seasons! It's time to start thinking and planning for fall and winter, which includes the upcoming harvest, ensiling forages, investing in a quality preservative/inoculant, ensuring sufficient forage inventories, adjusting feeding programs to accommodate new forages and much more.

We can help you to review and plan for the coming months, sampling forages and checking inventories, making strategic recommendations on your goals and targets, along with necessary purchases that can help your farm to operate at an optimum level year-round. Plan ahead. Be prepared. Call today and let's work together to move ahead!

CHOPPING CORN SILAGE FOR OPTIMAL RESULTS!

What is an ideal length of cut for chopping corn silage? And does length of cut impact rations? There are several things to consider when it comes to best-length and maturity at cutting. First, the length of chop affects packing density and ultimately silage quality. The need for a shorter chop length increases as the crop advances in maturity and when moisture content drops below 60-65%. Silage (not kernel processed) is often chopped at 3/8-to-1/2-inch theoretical cut. It is equally important that knives are kept sharp and properly set so that forage is cleanly chopped. If dull blades are used, especially with overly dry silage, the results will be stringy and many large corncob pieces will remain. These factors may contribute to poor packing and reduce consumption rates. Knowing the ideal cut-length and maintaining equipment is critical to the quality of your silage, and ultimately to the health and productivity of your cows. Get the facts. Talk with me about maximizing this year's harvest and having a positive impact on rations throughout the fall and winter months. And don't forget to invest in a quality, research-tested inoculant or preservative. You and your cows will appreciate the difference.

RENAISSANCE NUTRITION

W-S FEED & SUPPLIES LIMITED

W-S Feed & Supplies, Ltd.
1805 Sawmill Road
Conestogo, ON N0B 1N0
Canada
www.wsfeeds.ca

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