



DAIRYINFO

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Taking service to another level!

TIPS FOR TIMING CORN SILAGE HARVEST...

Corn development has accelerated with the recent warm temperatures. Silage harvest has begun in some areas – or anticipated to commence soon, especially any crops that had earlier planting dates. Proper harvest timing is critical because it ensures the proper dry matter (DM) content required for high quality preservation, which in turn results in good animal performance and lower feed costs.

Harvesting corn too wet (low DM content) results in souring, seepage, and storage losses of the silage with reduced animal intake. Harvesting too dry (high DM content) promotes mold development because the silage cannot be adequately packed to exclude oxygen. Harvesting too dry also results in lower energy concentrations and reduced protein digestibility.

Corn silage that is too dry is almost always worse than corn silage that is slightly [too] wet. So, if you are uncertain about the DM content, it is usually better to err on chopping a little early rather than a little late. Follow the guidelines below to be more confident in your assessment.

Harvest Moisture Guidelines: Corn preserved between 30-38% DM (62-70% moisture) generally provides excellent silage fermentation and animal performance. The optimal DM content varies with type of storage structure (see chart below).

Type of Structure	Optimal % DM
Horizontal bunkers	30 to 35
Bags	30 to 38
Upright, top unloading	33 to 38
Upright, bottom unloading	35 to 40*

*The higher DM concentration for bottom unloading silos is a compromise between forage quality and unloader requirements.

Kernel Stage Not a Reliable Guide for Timing Silage Harvest:

Dry matter content of whole plant corn varies with maturity. Research has shown that the position of the kernel milk-line is NOT a reliable indicator for determining harvest timing. Geographic location, planting date, hybrid selection, and weather conditions affect the relationship between kernel milk-line position and whole plant DM content. In a Wisconsin study, 82% of the hybrids tested exhibited a poor relationship between kernel milk-line stage and whole-plant percentage of DM. In Ohio research, considerable variation in plant DM content within a given kernel milk-line stage has been observed.

Appearance of the kernels should only be used as a guide of when to begin sampling for DM content.

When to Begin Field Sampling & Determining Silage

Moisture: The only reliable method of determining the optimal time to harvest corn silage is to sample and directly measure the percentage DM of whole plants. This information, combined with average whole plant dry-down rates, can be used to roughly predict the proper time to chop corn silage.

How to Sample Fields: Collect about 5 representative plants from the entire field, from areas with representative plant population and not from edge rows. Collect separate samples from areas that may have different dry down rates, such as swales, knolls, etc. The moisture concentrations of plants can vary within a field (plants will be wetter in low lying area and drier on knolls), and this should be considered when collecting your sample plants.

As soon as the plants are collected, chop them uniformly (use a cleaver, machete, chipper shredder, or silage chopper) and mix thoroughly to obtain a sample with representative grain-to-stover ratios for DM determination. Put the sample in a plastic bag and keep it cool (refrigerate if possible). Some producers prefer sampling only 2 or 3 plants without any additional sub-sampling to reduce the chances of a non-representative grain-to-stover ratio that can affect the results. In this case, choosing representative plants is more critical. Determine the DM content by drying the plant material using a Koster oven tester, microwave oven, convection oven, a vortex dryer, or taking it to a lab.

Once whole-plant percentage of DM is determined, use an average dry down rate of 0.5% unit/day to estimate days until the optimal harvest moisture is reached. This provides a rough estimate for the harvest date. Many factors affect dry down rate, such as hybrid, planting date, general health of the crop, landscape position, soil type, and weather conditions. Early planted fields and hot and dry conditions can accelerate dry down rates to 0.8 to 1.0 % unit/day. Fields should be monitored closely and more frequently under those conditions. As mentioned above, corn silage that is slightly too dry is usually worse than corn silage that is slightly too wet. So harvesting a little early is usually better than waiting too long.

(Edited from an article by Suic, Tomison, and Weiss, The Ohio State University)



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!

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HAVE ENOUGH?

Are you ready for the coming fall and winter months? Summer seems to come and go with rapid pace, leaving us stretched for time to 'get it all done'. Soon, it will be time to start chopping corn for silage and trying to gear-up for the colder months. However, you need to ask the question – "will I have enough?" That is referring to forages and feeds to see you through those coming months. Take time to calculate your feed-related needs now... and be prepared ahead of this winter with ample forage inventories to meet all your ration needs. Begin prepared makes it easier in the end, ensuring your livestock will have sufficient feedstuffs until next spring!

Call today for help in determining your available and needed forage inventories!

SCC & SUMMER TEMPERATURES... RISING TOGETHER?

During summer months, there tends to be a rise in the incidence of mastitis, along with higher bulk tank somatic cell counts. While new mastitis infections predominantly occur in the early dry period, around the time of calving and into early lactation, it can be a much more prevalent problem throughout an entire herd during these hot and humid summer months. However, there are steps we can take to help reduce these concerns and their impact on milk quality. Of paramount importance is maintaining a clean, dry environment! That includes not only the lactating cows, but also dry cows and calves. It is also important to consider adequate fly control during these months.

Summer months are also known to be problematic when it comes to coliform infections. If your herd has had problems with coliform mastitis during summer months, you might consider discussing a vaccination program with your veterinarian.

In most instances, it is easier to prevent mastitis and reduce SCC in the bulk tank during the summer months than you might think. Our focus needs to include the management tools we have at our disposal and maintaining a clean, cool and comfortable environment for our cows – with the goal of having a healthier herd and producing good quality milk all year-round!

(Edited from an article by Christina Petersson-Wolfe, Extension Specialist, Virginia Tech)

HERE'S TO A LOW SCC & LESS MASTITIS THIS SUMMER!



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