



Quick Tips to Reduce Storage Losses When Ensiling Corn Silage

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- Corn silage should be harvested at 35% dry matter (65% moisture) and $\frac{1}{2}$ to $\frac{3}{4}$ milk line. When results from numerous studies were combined and analyzed, harvesting corn silage at 40% dry matter or higher resulted in decreased milk yields of 4.4 lbs milk/cow/day. Thus, to prevent silage from being too dry if harvest time is extended or plant disease results in rapid dry down of the plant, starting at a slightly wetter moisture level may be warranted. At a dry matter of 35%, effluent from silos should be minimized.
- For choppers equipped with a kernel processor, corn silage should be chopped to a theoretical length of $\frac{3}{4}$ inch with no more than 2 or 3 half or whole corn kernels in 32 oz. cup and corn cobs broken into 8 pieces. For choppers without kernel processors, silage should be chopped to a $\frac{1}{2}$ inch theoretical length.
- To minimize losses, spread fresh silage into thin layers within the bunker or drive over pile and pack using 800 lbs of tractor weight per ton of silage (as fed) delivered per hour. Use of dual wheels on tractors does not increase packing density. The total weight of the tractor is the key factor and more important than time spent packing.
- Treat silages with proven inoculants at the recommended doses that both (1) enhance fermentation resulting in a rapid decrease in silage pH and (2) decrease yeast counts and heating during feedout. However, the use of inoculants will not replace good silage handling and preservation practices.
- Line sides of bunker walls with plastic with extra plastic overlapping the walls. Once filling is complete take the excess plastic overlapping the walls and cover the top. Place another piece of plastic over the top of the silo. These pieces of plastic should overlap by 3 to 4 feet and the overlap weighted down with double the amount of weight as the remaining plastic.
- Silos should be covered immediately after filling. Choose plastic with low oxygen permeability.
- For drive-over piles, side slopes should not exceed a 3:1 slope. This allows for water to drain off the pile and for safer packing with equipment. When covered, plastic should extend 4 to 6 feet off the forage surface around all 4 sides and be weighted down with a 6 to 12 inch layer of sand or soil or sandbags.
- After covering silage with plastic, weight plastic down with tire sidewalls or sandbags which touch to keep all layers of plastic close to the silage top surface. Uncovered silage results in losses in organic matter of 47% within the upper 20 inches and 11% losses within the next 20 inches. This area represents over 25% of the total amount of feed stored in the silo structure. Covering silage reduced these losses to 20% in the upper 20 inches and 5% in the next 20 inches.
- Silage spoilage reflects not only that which is visibly molded but also silage that does not show any signs of spoilage. Feeding spoiled silage results in decreased feed intake even when fed to heifers or dry cows and may result in diseases, such as listeriosis.

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