

# Texas Dairy Matters

*Higher Education Supporting the Industry*

---

## Prepare for Silage Season

Ellen Jordan, Ph.D.  
Extension Dairy Specialist  
Texas A&M AgriLife Extension Service  
The Texas A&M University System

Corn silage season will soon be here. Take time now to review what has worked and what created challenges for silage management. Spending time now to plan for improved silage management can pay dividends all year long.

Start with **location**. Are the silage piles/pits located so they are accessible year round? Did you have trouble getting into certain piles due to muddy conditions last year? If so, is there a location with better drainage available? Do you need to construct a concrete or asphalt pad to improve accessibility?

Although the goal is to have zero seepage, make sure that any effluent from the pile is contained and goes into the retention control structure.

Train the **Pile Builder**. How the pile is built is critical to the success of the packers. Whether the pile is in a bunk with sides and an end wall or if drive-over piles are built, spread the silage in thin layers – NO MORE THAN 6 INCHES deep. Build the pile in a progressive wedge shape. Fill from back to front. For safety sake build the pile with a 30 to 35% slope or a 1 to 3 slope. Limit the height to the maximum reach of the silage facer or other equipment used to remove the silage for feed out. Don't fill bunkers above the side walls.



Schedule the **packing tractors and identify operators**. Inadequate packing is one of the biggest issues on dairies. A target density for silage is at least 15 pounds of dry matter per cubic foot. Unfortunately, many farms don't achieve that density, resulting in silage losses due to poor fermentation. To calculate the number of tractors needed for adequate packing multiply the number of tons per hour delivered to the bunker times 800 to get the packing weight required.

For example, if the harvest team can cut 5 acres per hour of 25 tons per acre silage, 125 tons of silage will be delivered hourly. Thus 125 tons per hour times 800 equals 100,000 pounds of tractor weight needed on the pile. Thus if the average tractor weight is 50,000 pounds 2 packing tractors are needed, but if the average tractor weight is 25,000 pounds the number increases to 4 packing tractors needed.

Improve compaction by using wheel-type tractors rather than crawler-type tractors. For safety sake, equip all tractors with rollover bars and seat belts. Plan to pack for at least a half hour after delivery of the last load of silage each day.

Another key step to reduce silage loss is to **cover the pile** immediately. Advance planning is required here as well. First, decide which type of cover you are going to use. Based on the estimated size of your pile, order the cover so it is on hand by the time you finish harvesting and packing. Make sure you order enough materials to overlap the plastic wherever seams are required.

Check to make sure you have enough tires to cover the entire surface with tires touching each other. If you have been using whole tires, have them cut. This will make them lighter to handle and workers won't have water sloshing on them. In addition, cutting the tires so they don't hold water, rids your dairy of a mosquito breeding ground. This is important in controlling mosquito borne diseases such as West Nile Virus and perhaps the Zika virus, if it makes it to the U.S.

Silage is a key ingredient in dairy rations. Taking time to prepare for this year's crop helps insure that adequate packing and timely covering can occur. This will reduce losses from spoilage and increase dry matter preservation.