

Texas Dairy Matters

Higher Education Supporting the Industry

COVERED SILAGE MEANS BIG SAVINGS

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Texas dairy producers make lots of corn, wheat and sorghum silage. If not covered, dry matter losses in the top three feet of bunk silos can exceed 50 percent. And the nutrient value of the feed left is reduced.

Most producers use bunker or trench silos for economic reasons. To protect that investment in silage, cover it with polyethylene sheets weighted down with tires. Based on work from Kansas State University, the extra step of covering a bunk silo can reduce top spoilage from 50% to 20%.

If you aren't convinced that covering your silage is economically justified, calculate the net return to covering your silage, using these four factors:



Example Assumption

a) The value of your silage in \$/ton	Corn Silage = \$30/t
b) The cost of the polyethylene sheets	\$0.055 per ft ²
c) The cost of the tires used to weight the sheeting	Zero cost
d) The cost of the labor to cover the silage	\$20/hr

Determine the amount of silage in the top 3 feet of the silo by multiplying the width, length and depth times one another and then by the silage density (45 lbs./ft²). Divide that by 2000 to convert to tons. Example: For a 40 ft by 200 ft silo, the calculation would be (40 ft. X 200 ft. X 3 ft. X 45 lbs./ft²) 2000 lbs./ton = 540 tons of silage in the top three feet.

Thus, a 50 percent loss in our example unsealed silo would be \$8100 (540 tons X \$30/t X 50%). Seal the silo and the loss decreases to \$3,240 (540 tons X \$30/t X 20%). Calculate the cost of sealing the silo as follows: estimating the cost of the polyethylene at \$440 (\$0.055 per ft² X 8000 sq.ft.) and 20 hours labor to cover the stack at \$400, the total cost to cover is \$840.

Finally, calculate the net return to sealing the silo.

Silage loss unsealed	\$8100
Silage loss sealed	- 3240
Cost of sealing	<u>- 840</u>
Net saving	\$4,020

Sealing a silo prevents dry matter losses. What's more, valuable nutrients are preserved, improving animal performance. Stop losses two ways by sealing your silo.