

Culbac® Silage

Naturally Effective Solutions



Culbac® Silage is a dry or liquid treatment that inhibits mold growth and enhances the anaerobic fermentation of ensiled and fermented crops by facilitating the production of lactic acid.

Culbac® Silage Benefits

- Increases dry matter
- Increases recovery of crude
- Inhibits mold growth
- Stimulates the growth of lactic acid producing bacteria
- Rapidly reduces pH level through enhanced anaerobic fermentation
- Decreases heat damage
- Improves the aerobic stability of silage during feed-out
- Increases palatability
- Protects the nutritional quality of the silage
- Improves the color and aroma of silage
- Greater product stability
- Longer shelf-life
- No special storage requirements (such as refrigeration)



Culbac® Silage Application Rates

Silage Dry: 1 lb. per 5 tons of Silage

Apply 1 lb. to 2.5–5 tons of high moisture grain.

Silage Liquid: 1.3 fl. oz. per ton of silage

Apply 1.3–2.6 fl. oz. per ton of high moisture grain.

TRANSAGRA

INTERNATIONAL INC.

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Naturally Effective Solutions

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Questions and Answers You Should Know About Ensiling Crops with Culbac® Silage



How does Culbac® Silage work?

Culbac® Silage stimulates the rapid production of lactic acid which speeds the reduction of pH in silage. When silage crops are chopped, pH is normally in the range of 6.0 to 7.0. Plant cell respiration and aerobic fermentation cease as silage pH drops below 6.0. Lactic acid production is at its peak when pH is between 4 and 4.5.

What are the effects of butyric acid on silage?

The unpleasant odor produced by butyric acid reduces palatability and as a result livestock intake. High levels of butyric acid indicate that an undesirable *Clostridial* fermentation occurred in the silage. A slow initial fermentation enhances the production of butyric acid. Rapid lactic acid production, which can be stimulated by the use of **Culbac® Silage**, speeds the reduction of silage pH and prevents the production of butyric acid in silage. University research as well as field trials conducted by TransAgra confirm the Culbac® treated silage contains less butyric acid than untreated silage.

Butyric Acid Content of Corn Silage

	Untreated Control	Culbac® Treated
Kansas State University data	0.07%	None
Field Trials	0.27%	0.16%

How does Culbac® compare with other silage additives?

A number of trials have been conducted to evaluate the effectiveness of Culbac® compared to other silage additives. The data in Table 1 shows the results of university research which compared Culbac® against a live inoculants and an organic acid.

TABLE 1. Efficacy of Culbac® and Other Silage Additives (University of Tennessee)		
	Dry matter recovered at end of fermentation	
Untreated Control	85.7%	429 tons
Live Inoculant	87.9%	440 tons
Organic Acid	93.4%	467 tons
Culbac® Treated	93.9%	470 tons

Products were applied at manufacturers' recommended dosage. The corn silage was 25% dry matter going into the silos. The Culbac® treated forage had more dry matter recovery than the other treatments.

The data in Table 2 represents the average results from 5 research trials. Each treatment was replicated 3 times in each of the 5 trials.

TABLE 2. Culbac® vs. Live Inoculant on Corn Silage (Summary of 5 research trials)			
	Wet weight recovery	Dry matter recovery	Crude protein recovery
Untreated Control	98.4%	89.2%	92.8%
Live Inoculant	98.3%	91.2%	92.3%
Culbac® Treated	98.6%	92.2%	96.5%

Products were applied at manufacturers' recommended dosage. Culbac® outperformed the live inoculant as well as untreated control by reducing shrinkage during the fermentation process to conserve more dry matter and more crude protein.



Culbac® Silage Treatment can help improve the quality and feeding value of ground roughage and extend the bunk life of fermented forage.