

ESTABLISH™ LACTOShield™

Control the fermentation process inside your feed bunk with ESTABLISH LACTOShield from Perdue AgriBusiness®

The use of silage inoculants allow producers to control the bacterial fermentation occurring within their feed bunk. Inoculants allow for proper silage preservation and to prevent spoilage and dry matter loss. Rapid and efficient fermentation prevents undesirable bacteria, yeast and molds to grow, leading to a high-quality forage for increased dry matter intake, higher protein levels, improved feed efficiency and maximum milk production.

Preserve.
Control.
ESTABLISH™

Competitive Exclusion

Fermenting simple sugars, within the forage, limits nutrient utilization of other potentially pathogenic bacteria.

Rapid Acid Production

Bacterial fermentation produces lactic acid and reduces the pH.

Limited Pathogen Growth

Lactic acid induced pH reduction controls the growth of other bacteria, yeast and molds.

ESTABLISH LACTOShield is uniquely formulated to contain three different types of bacteria, that have differing roles within the ensiling process. This grouping of bacteria, into a single product, has a complementary effect so that the strengths of each specie contribute to the overall effectiveness of the inoculant.

Enterococcus faecium Ensiling Starter.

This bacterium grows quickly, utilizing simple sugars in the silage, to produce lactic acid causing rapid fermentation, lowering the pH, and creating optimal conditions for the growth of other *Lactobacillus* species.

Pediococcus acidilactici Maintains Ensiling.

This organism grows in a wide range of temperatures, pH, and in presence of oxygen. They produce lactic acid as they grow, creating more desirable conditions for the other indigenous and inoculant species of *Lactobacillus* in the changing environment of the bunk.

Lactobacillus plantarum Finishes Ensiling.

This organism finishes the fermentation process and grows at a pH as low as 3.8. At pH 4.0, all other microbial growth has ceased allowing the silage to be considered stable. Utilizing the remaining sugar in the silage, this bacterium ensures that the pH remains low and sustains silage stability.

pH of Alfalfa Grass

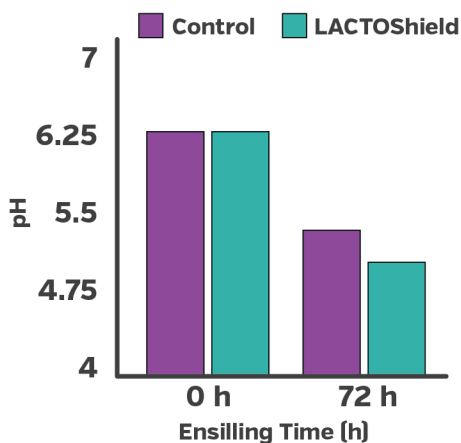



Figure 1: Results from the University of Delaware, assessing the effect of LACTOShield on the pH of Alfalfa grass.

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1.800.525.1992 • goagpartners@perdue.com • perdueagribusiness.com