Nutretain™

Silage Inoculants

PRO
PLUS
MAX

FORAGE INOCULANT PORTFOLIO

dellait®
Forage Technologies

Nutretain™

Nutretain is a science-based forage preservation technology that synergistically combines multiple bacteria strains with high-activity enzymes to speed the fermentation process increasing lactic acid production while improving dry matter recovery and forage quality over a broad range of crops.

Additionally, Nutretain silage inoculants work as **very effective preservatives.** Nutretain treated silages produce moderate concentrations of acetic acid during fermentation; this is beneficial because acetic acid inhibits yeasts and molds, resulting in improved stability when silage is exposed to air.

Maximize your forage potential with Nutretain, 25 years of proven success

In fact, silages with very low concentrations of acetic acid may be unstable upon feed-out (Kung et al., 2018). When acetic acid from silages is consumed by ruminants, it can be absorbed from the rumen and used for energy or be incorporated into milk or body fat.

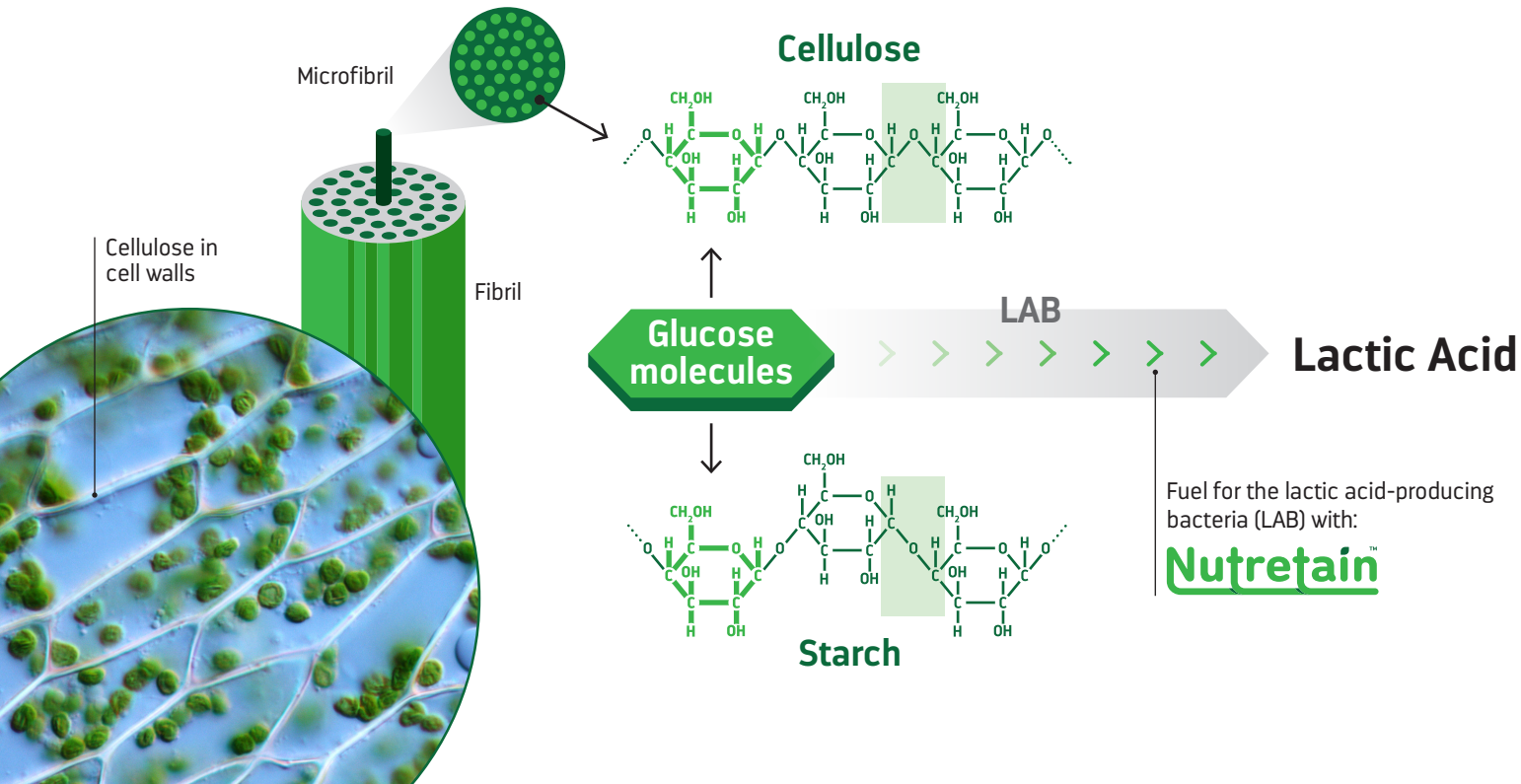
The goal of making silage is to produce a stable feed with a high recovery of dry matter, energy, and highly digestible nutrients compared with the fresh crop.

MODE OF ACTION

Nutretain is designed with a **dual-action technology.** The combination of enzymes and live organisms act synergically in a multi-step fashion for a superior biotransformation efficacy.

First, the **enzymes break down cellulose and starch molecules** generating glucose that serves as fuel for the lactic acid-producing bacteria (LAB).

Subsequently, LAB convert that glucose into lactic and acetic acid. **This combined effect rapidly drops the pH** in the ensiled crop reducing up-front losses and prevents the growth of undesirable microbes like clostridia. The enzyme action and accelerated fermentation associated with it leads to less heating, more digestible forage, and greater **nutrient retention.** Hence the origin of Nutretain name.



NUTRETAIN PRODUCT DECISION GUIDE

	PRO Nutretain™	PLUS Nutretain™	MAX Nutretain™
Crop Usage	Alfalfa and legume haylage Grass haylage Small grain silage	Corn silage Sorghum silage	High-moisture corn Earlage Snaplage
Bacteria Strains	*Pediococcus pentosaceus* *Enterococcus faecium* *Lactobacillus plantarum*	*Pediococcus pentosaceus* *Enterococcus faecium* *Lactobacillus plantarum*	*Pediococcus pentosaceus* *Enterococcus faecium* *Lactobacillus plantarum*
Enzymes	Amylase Xylanase Cellulase	Amylase Xylanase Cellulase	Alpha-Amylase Gluco-Amylase Xylanase
Features	Combines three specifically selected strains of lactic acid bacteria. High levels of fibrolytic enzymes to break down the fiber in these crops. Release glucose from plant cell walls to fuel fermentation. Oxygen scavenging. Enhance the nutritive value of silage by increasing the digestibility of cell walls.	Effective levels of fiber and starch digesting enzymes combined with lactic acid bacteria to fuel a fast, efficient fermentation. Oxygen scavenging. High lactic and acetic acid production for greater aerobic stability. Enhance fermentation and improve dry matter recovery	Very high levels of 2 starch digesting enzymes to maximize glucose release with high levels of lactic acid bacteria designed to enhance fermentation and digestibility. Oxygen scavenging. Enhanced lactic and acetic acid production for greater aerobic stability and starch digestibility in corn and sorghum grains.
Packaging	1.0 lb. (453.6 g) foil pouch	2.5 lb. (1,134 g) foil pouch	2.5 lb. (1,134 g) foil pouch
Amount treated	200 tons of fresh forage	1,000 tons of fresh forage	500 tons (18,000 bushels)

> *"I have used silage preservatives for over thirty years and have never found a preservative more **effective and affordable** as this one"*
>
> Lowell Mueller (Vi-View Dairy, Hooper, Nebraska)

> *"Nutretain is a key component of our forage procurement process. I feel quality, consistent forage is **key to profitability on any farm** and Nutretain has provided that for the last 14 years"*
>
> David Elliott (Drumgoon Dairy, Lake Norden, South Dakota)

> *"We have used Nutretain inoculants for many years and have to say it is **very economical and get great fermentation.** Our silage has been well fermented and have seen nice acetic acid levels in the silage, higher than with other similar inoculants"*
>
> Stefan Temperli (Crosswind Jerseys, Elkton, South Dakota)

Nutretain™

BENEFITS

- ✓ Proven efficacy by research & field trials
- ✓ Increases nutrient value & silage digestibility
- ✓ Enhances forage palatability & dry matter intake
- ✓ Improves dairy & beef cattle performance
- ✓ Easy to mix & non-corrosive to equipment
- ✓ Cost effective

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