

What Our Inoc-U-Lock™ Line of Forage Inoculants Has to Offer for Your Farm



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One of the main goals on farms is for profitable livestock, and the foundation that profitable livestock rely on is feeding high quality forages. The need to feed high quality forages is critical to a healthy bottom line for any dairy or beef producer. Research has shown that applying a high-quality

inoculant to forages at the time of ensiling can in turn provide a significant return on investment for the producer. There are many benefits to a well-designed inoculant program including speeding up fermentation which leads to reducing dry matter loss, reducing protein degradation and energy loss, stabilizing face quality, improving bunk shelf life, enhanced dry matter intake and improved forage digestibility. Crystal Creek® believes that our line of Inoc-U-Lock™ forage inoculants will help producers reach these goals on their farms.

Crystal Creek's® Inoc-U-Lock™ lineup features four different inoculants each designed to best suit each

feedstuff. Inoc-U-Lock™ is a scientific, proprietary blend of beneficial bacteria and sugar releasing enzymes that each function in specific pH ranges, for a more controlled and reliable fermentation process. Inoc-U-Lock™ utilizes both bacteria and enzymes to help start, control, finish and stabilize the fermentation process. The synergistic bacteria and enzyme formula provides a controlled and efficient fermentation process resulting in higher quality feeds and increased production. Using Inoc-U-Lock™ on feedstuffs can reduce dry matter loss by up to 4%.

A farm's feed waste or loss is commonly referred to as shrink. Shrink can have a significant impact on feed quality, quantity, and profit. Crystal Creek® inoculants all contain five strains of bacteria to aid in the fermentation process along with aerobic stability. These five strains work together: The first strain starts the fermentation process at the pH of seven and starts lowering that pH, and once the first strain is done the second strain kicks in to continue to lower that pH. Then the third and fourth strains kick in finishing that fermentation process while continuing to lower that pH, and then the fifth and final strain stabilizes and preserves the pH ending that fermentation process at the desirable pH of four. Along with the five strains of bacteria, these inoculants also contain four types of enzymes that release water soluble carbohydrates(sugars) from the plant. These sugars are food for the fermentation bacteria. Our four Inoc-u-lock™ products are Inoc-U-Lock™ Buchneri, Inoc-U-Lock™ Dry, Inoc-U-Lock™ Water Soluble(WS), and Inoc-U-Lock™ Baled Hay(BH).

Inoc-U-Lock™ Buchneri is a full spectrum water soluble inoculant designed to protect corn silage and high moisture grains as well as enhancing the fermentation performance. It reduces dry matter loss, helping with extending bunk life for improved dry matter intake and stabilizing the storage face quality of the ensiled forage. This inoculant contains an extra strain of bacteria, Lactobacillus Buchneri, in addition to the other five strains of bacteria. This strain specifically helps with protecting the face of

Figure 1 FEATURES OF INOC-U-LOCK™:

Higher Quality Feed

- Reduced Dry Matter Loss
- Reduced Protein Loss
- Reduced Mycotoxin Risk

Better Silo Face Quality

- Less Waste
- Increased Aerobic Stability

Longer Bunk Life

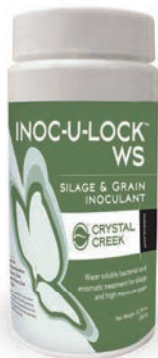
- Less Heating in Bunk
- Increased Dry Matter Intake

Meets NOP Standards

Dry and Liquid Application

Economical to Use

(Continued on page 8)



Application Rates and Treatment Cost/Ton for Inoc-U-Lock™ Products

INOC-U-LOCK™ BUCHNERI		
Crop	Corn & Sorghum Silage	High Moisture Corn
350 gram Foil Packet	Treats 200 tons	Treats 100 tons
INOC-U-LOCK™ Bacteria CFUs Per Gram Of Crop	100,000 CFUs/gram	200,000 CFUs/gram
PLUS L. Buchneri Bacteria	PLUS 100,000 CFUs/gram	PLUS 200,000 CFUs/gram
Treatment Cost/Ton	\$1.48/ton	\$2.95/ton

INOC-U-LOCK™ WS (Water Soluble)			
Crop	Corn & Sorghum Silage	Grass or Legume Haylage & Small Grain Silage	High Moisture Corn
350 gram Jar	Treats 200 tons	Treats 100 tons	Treats 66 tons
Bacteria CFUs Per Gram Of Crop	100,000 CFUs/gram	200,000 CFUs/gram	300,000 CFUs/gram
Treatment Cost/Ton	\$0.69	\$1.39	\$2.10

INOC-U-LOCK™ BH (For Baled Hay)			
Tons Per Jar	20 tons	13 tons	10 tons
Grams Per Ton of Baled Hay	20 gm	30 gm	40 gm
% Moisture of Baled Hay	<18%	18-20%	20-22%
Bacteria CFUs Per Gram Of Baled Hay	210,000 CFUs/gram	315,000 CFUs/gram	420,000 CFUs/gram
Treatment Cost/Ton	\$4.30	\$6.61	\$8.60

INOC-U-LOCK™ DRY			
Crop	Corn & Sorghum Silage	Grass or Legume Haylage & Small Grain Silage	High Moisture Corn
25 lb. Bag	Treats 100 tons	Treats 50 tons	Treats 33.3 tons
Bacteria CFUs Per Gram Of Crop	100,000 CFUs/gram	200,000 CFUs/gram	300,000 CFUs/gram
Treatment Cost/Ton	\$0.69	\$1.37	\$2.06

INOC-U-LOCK™

(CONTINUED FROM PAGE 6)

the feed from mold and mycotoxins and keeping that face fresh. Inoc-U-Lock™ Buchneri can be used on corn and sorghum silage, and on high moisture corn.

Inoc-U-Lock™ Dry is a dry bacterial and enzymatic treatment for the enhanced fermentation of silage and high moisture grains. With this product you do not need to mix it with water for application. Inoc-U-Lock™ Dry can be incorporated into corn silage, sorghum silage, grass/legume silage, small grain silage, and high moisture corn.

Inoc-U-Lock™ WS is a water soluble bacterial and enzymatic treatment for the enhanced fermentation of silages and high moisture grains. This inoculant is cost effective and easy to use. It is mixed with water according to the applicator directions and can be used on corn silage, sorghum silage, grass/legume haylage, small grain silage, and high moisture corn.

Inoc-U-Lock™ BH is a water soluble bacterial and enzymatic treatment for the stabilization of baled hay during the final dry down period. It does not ferment but instead slows down decay and stabilizes the hay until the drying process is done. Apply this product to laying hay before baling at 12-18% moisture to prevent mold formation. Inoc-U-Lock™ BH lengthens the harvesting window, is not corrosive to equipment, and is environmentally safe to handle. Some additional tips for storing baled hay

Figure 2 BENEFITS OF INOC-U-LOCK™ 1

Increased Voluntary Dry Matter Intake

- Better/more Consistent Rumen Function

- Improved Herd

Reproduction Health

- Less Metabolic Disease Expense

Reduced Feed Costs

- Less Feed Waste

Increased Milk Production

Increased Milk Components

Increased Profitability

when this product is applied include leaving plenty of space between bale rows to allow baled hay to breathe and complete the drying process, and protecting the bales from the weather will help the drying process as long as air flow is not restricted.

The Inoc-U-Lock™ line of inoculants are excellent high performance products and offer great value. They are also formulated to be allowed for organic use. Protect your hard work, investment and bottom-line by applying Inoc-U-Lock™ to your feedstuffs.

References available upon request.

