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The Green Liner File

Promoting healthy dairy products and practices.

Greetings from Lauren AgriSystems

by Chuck Laney, President

Over the past few months, I have had the opportunity to meet and work with many of our new customers, dealers and other people in the dairy industry. It has been a very exciting time for Lauren AgriSystems and it is wonderful to know that Lauren International, corporate parent of Lauren AgriSystems, has yet another success story to tell.

The original Lauren company was Lauren Manufacturing. Founded in 1965, Lauren Manufacturing became a leader in the rubber products industry through a reputation of providing innovative design and material development. These attributes made Lauren Manufacturing successful and became the starting point for new

business opportunities decades later.

In 1994, Lauren International was formed to help position Lauren globally in a number of markets. Over the next 10 years, Lauren International added new companies (Edgetech, LMI Custom Mixing) that helped bring material development and innovative designs to long-standing industries that were in need of changes.

Lauren AgriSystems was formed in 2002 to take the same philosophies to the agriculture market. Starting with flooring, Lauren AgriSystems quickly saw opportunities in several areas in the dairy industry. In the process of designing better materials to use in making inflations, the Lauren Liner Tri-Circle® barrel design was devel-

oped. In 2003, the Lauren Dairy was purchased to have a controlled environment for product testing. After extensive renovation, the dairy is fully functional, milking 550 head.

Across the US, we are now approaching 100,000 cows milking every day on Lauren Liners with some dairies having used Lauren Liners for over two years now. The results have been great for teat ends, as you will read about in this issue. We look forward to continued results and serving the needs of the dairy industry in the months and years to come.

Sincerely,

Lauren
AgriSystems
Hd.
Perfecting Parlors With Polymer Products



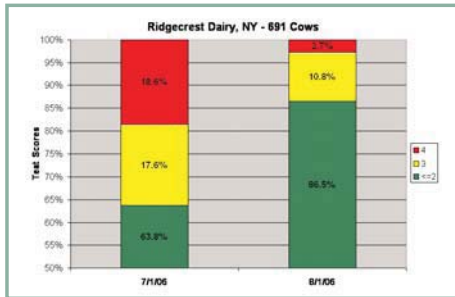
Lauren Liner and Teat-End Health

by Rich Carpenter

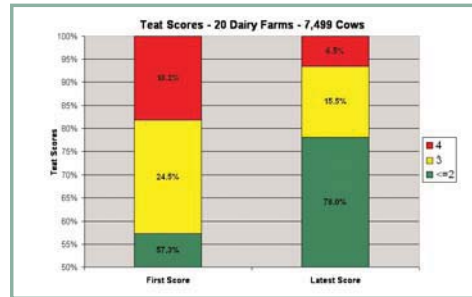
At Lauren AgriSystems, we are focused on herd health and farm profitability; and teat-end health brings those two together. There are many variables that can contribute to SCC and mastitis, however there are only a few factors that contribute to

poor teat-ends or hyperkeratosis, one being the liner. The Lauren Liner has seen great results of teat-end health recently on dairies in PA, NY and MD. With over 50 new installs in the last 6 months, there have been dramatic decreases in Level 3's and 4's for teat scoring, when compared to scores prior to using the Lauren Liners. A common goal amongst the dairies is to have greater than 80% of scores at a 2 or below, less than 15% at a 3, and less than

5% scored as 4's. The following two graphs represent the change in teat scores after the switch to the Lauren Liner. The change is due to the material used and the revolutionary design of the Lauren Tri-Circle® Silicone Liner. In the next couple of newsletters you will learn more about why the material and design of the Lauren Liner plays such an important role in improving teat-ends.



* Info provided by Lauren AgriSystems.



* Info provided by Lancaster Dairy/Tri-State Farm Automation
First score taken before system was updated.

Long Term Use of Higher Vacuum

by Rich Carpenter

Many of you have asked about the long-term effect of higher vacuum, which is required for the Lauren Liner. When starting out, we asked ourselves this important question: what effect does higher system vacuum have on teat-ends over a long period of time? To learn the answer to that question, we started milking with the

Lauren Liner and higher vacuum at Lauren Dairy, the Bos Dairy in FairOaks, Indiana and T&T Cattle in Parma, Idaho. That was over two years ago and test results confirmed a lack of negative effects from higher vacuum over a sustained period of time. Today, there are 14 additional dairies successfully milking with Lauren Liners and

higher vacuum that have surpassed the one-year mark. We look forward to the continued success for these dairies and many more dairies to come. In the coming issues of "The Green Liner File" look for more research and information that answers the questions of long-term use of higher vacuum.



Pictured in photo: Bos Dairy's parlor in FairOaks, Indiana



Pictured in photo: T & T Cattle in Parma, Idaho



Dairy Spotlight: Lauren Dairy

Millersburg, Ohio – 550 Milk Cows,
Double 12 Herringbone

Lauren Dairy, a division of Lauren International, was purchased in November 2003 to provide a practical application of product design and ideas, for the optimal development of products by Lauren AgriSystems. The dairy has gone through an extensive transformation. Tear down, clean up and new construction began immediately to improve the milking facility and how the cows were milked. Many barns and buildings were renovated, as well as adding a 125-cow dry cow barn, manure separator, and two bunk silos with 12,000-ton capacity. Today, the research dairy, located in the heart of Amish country, is a fully operational dairy with established end results that will help address the major challenges facing the dairy industry. Milking cows comfortably, improving milking performance and creating



Pictured in photo: Lauren Dairy's parlor and milkhouse.

healthier teat ends are all a focal point for Lauren Dairy.

Lauren Dairy has been using the Lauren Tri-Circle® Silicone Liner for over two years now, and a wide variety of studies have been completed with the Lauren Liner. Teat-ends are at a record best 89% 2's and below, 8% 3's, and only 3% 4's.

The Lauren Dairy provides a quality, controlled environment for these and other tests of Lauren AgriSystems' innovative products. The research we are doing is focused on

providing opportunities for dairymen to improve the health and welfare for themselves, their families, their staff and most of all, their herds!

We want to feature your dairy!

We have seen many success stories throughout the dairy industry over the last year and are looking for more. If you have a success story about your dairy, let us share it! Contact us to see how we can shine the spotlight on your dairy.
Call Toll Free - 800.683.0676

Spare Shells Saves Time & Improves Performance.

by Rich LeViere, Field Service



Making sure shells are clean before installing new liners is a very important part of any dairy's maintenance program. Pulsators get dirty from two sources- air coming in from the fresh air source or air coming in from the shell vacuum chamber following the short air tube to the twin air tube and then to the pulsator. There can be a great deal of build up inside the shell, that can affect the message of the liner.

One great way to ensure you have clean shells is to have a complete second set of shells. It is a small price to pay to ensure clean, inspected shells for new liners. Having spare shells on hand can decrease down time and ensure the effectiveness of high performance systems milking today's high performance cows.

Twin Air Tube Research

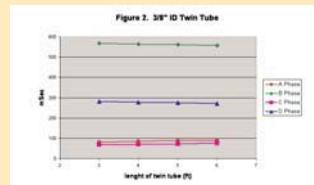
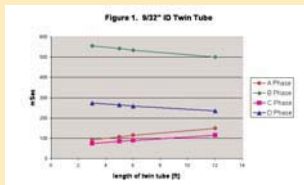
by Aaron Kochman, R&D

A short study was done to determine the effects of twin air tube length and diameter on pulsation. 9/32" and 3/8" ID tubing was used with the same pulsator, claw, shells, and liners for each trial. This test was performed in a laboratory setting. Tube lengths of 3', 5', 6', 12' were monitored for performance with the vacuum set at a constant level of 14.4"Hg for each trial.

The results observed in **Figure 1** and **Figure 2** demonstrate that as the twin air tube gets longer, A & C phases will get longer and B & D phases will get shorter. They also show that as tube diameter increases, A & C phases will get shorter and B & D phases will get longer. It is important to understand how length and diameter of the twin air tube can affect pulsation.

Let's look at the set-up used to obtain this data. The pulsator used for this trial has approximately a 580ms B-phase with no twin air tube. Adding 10' of 9/32" tubing to the pulsator would reduce the B-phase to about 520ms. Using 10' of 3/8" tubing would make it approximately 544ms.

It should be noted that the actual values are dependent on the equipment and settings used. The graphs are only to show the relationship of twin air tube to length and diameter.



Show updates and future schedule

Empire Farm Days Wrap-up Aug 8-10, Seneca Falls, NY

Great weather, although hot at times, allowed over 75,000 visitors to take part in the 73rd Annual Empire Farm Days, located on the 300-acre Rodman Lot & Son Farm. Located in the NW Main Tent Lot #39, we joined more than 600 exhibitors, and had the opportunity to catch up with our current customers along with meeting many potential new customers. We look forward to returning again next year!

Ag Progress Days Wrap-up Aug 15-17, Rock Springs, PA

We were one of over 380 commercial and educational exhibitors to set up on the 1,500-acre Russell E. Larson

Agricultural Center in Rock Springs, PA. It was great to meet some of the 50,000 estimated visitors, as we shared space with Lancaster/Tri-State Dairy Farm Automation. Look for the Lauren AgriSystems booth next year.

VISIT US AT:

World Dairy Expo
Oct 3-7, Madison, WI
Arena Level Booth # 215
www.worlddairyexpo.com

Keystone Farm Show
Jan 9-11, York, PA
Booths E278 & E279 Building #3
www.keystonfarmshow.com

World Ag Expo
Feb 13-15, Tulare, CA
Dairy Center Booths 6109 & 6110
www.farmshow.org



December Issue:

**Liner Design, what makes the
Lauren Liner so different?**

From the touch point of liners to the setting of proper vacuum levels, we will take a closer look at why the Lauren Liner is different from any other and how the patent-pending Tri-Circle® barrel design helps heal teat-ends.

