

DariLife

NEWSLETTER

Dedicated to Livestock

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Welcome to DariTech

We built DariTech on a solid foundation of service. If your equipment breaks down at 3 a.m. on Christmas eve, we'll be there at no extra cost to you.



We guarantee year-round service on all of the products we offer, and even on some that we don't. We're a full-service dairy company and we're here to cover your needs.

Inside you'll find useful news on the dairy industry. You'll also learn about our products and how they're helping dairymen in the Northwest.

Above our foundation of dedicated servicemen, is our roof of cutting-

edge technology. We provide the newest technology at the most affordable price. We're always looking for ways to make dairying more economical and efficient.

As lifelong members of the Northwest Dairy community, we're dedicated to succeeding and growing with you. We believe that success is a process with no finish line, and that we're in this journey together.



Home-Grown Energy

Manure as a renewable energy source

Steve Peerce

There's been much talk in our industry recently about anaerobic digesters and their benefits to dairy operations. DariTech would like to take this opportunity to outline digester basics, and of course welcome inquiries for additional details.

Anaerobic digesters convert the organic matter in manure into a valuable energy source, as well as provide dairymen the opportunity to capitalize on the emerging carbon trading markets based on the controlled reduction of greenhouse gas emissions. These benefits, coupled with opportunities for odor control, make anaerobic digesters an attractive manure management tool for many dairies.

Because the interest in digesters is centered around energy production, the discussion is typically about bacteria which exist in an anaerobic environment. Because anaerobic bacteria cannot survive in the presence of oxygen, their byproduct is CH₄ (methane) rather than the CO₂ (Carbon Dioxide) which is a byproduct of the aerobic bacteria found in an oxygen rich environment such as a compost.

Anaerobic digesters are simply extensions of the cow's digestive system. A dairy cow is an extremely efficient animal, digesting an average of 66% of its feed. As you might imagine, this would represent the feed's most easily digested components with the more difficult to digest parts excreted. This is the portion available to us to produce energy, and it can take up to 20-30 days to digest 30-40% of the remaining one third. Put another way, the cow utilizes about 66% of the energy in the TMR. With an anaerobic digester, we are able to digest an additional 10%. The remaining material is rarely cost effective to treat anaerobically, and typically it will be separated and land applied.

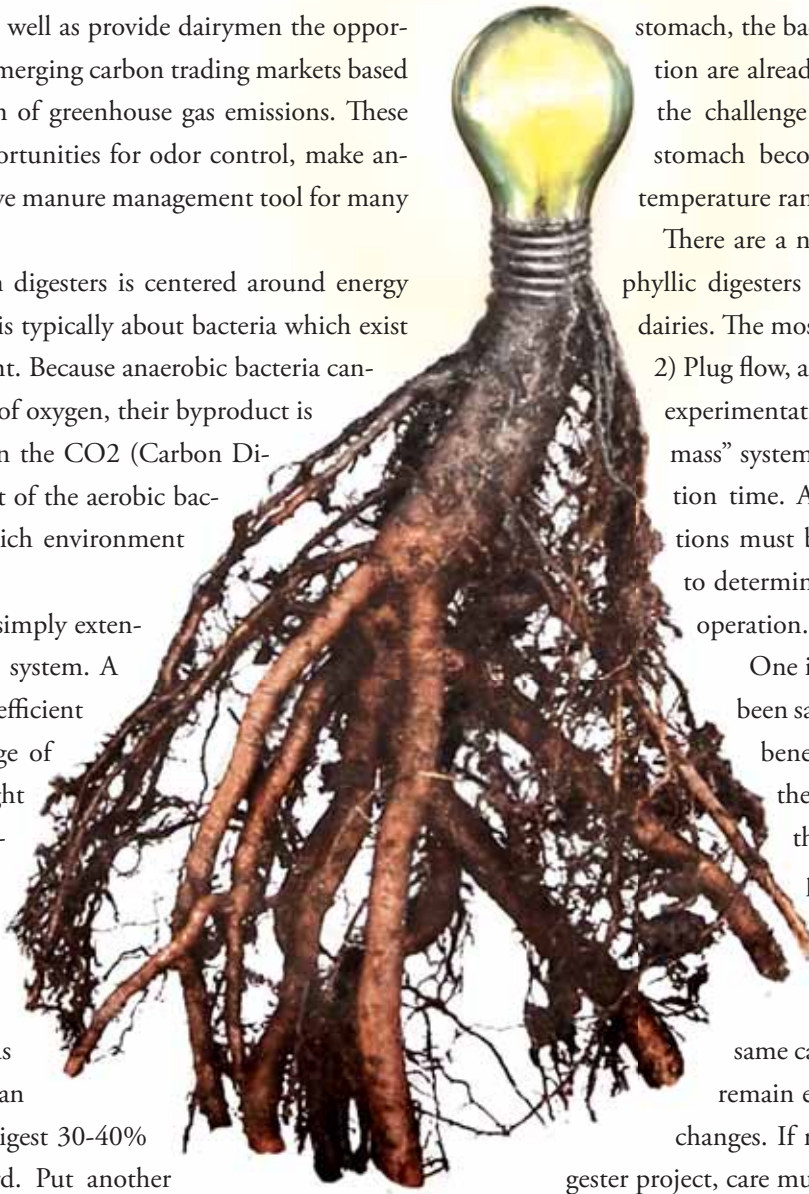
Anaerobic digesters can operate in several different tempera-

ture zones: 1) ambient 2) mesophilic (~100°), and 3) thermophilic (~120-130°). Ambient temperatures vary over time, leading to inefficient performance in all but the warmest climates. Thermophilic digesters can be difficult to manage, so most dairy digesters operate in the mesophilic range. Conveniently, because mesophilic temperatures are the same as in a cow's stomach, the bacteria required for anaerobic digestion are already active in the manure. Therefore, the challenge to mimic conditions in a cow's stomach becomes considerably simpler in this temperature range.

There are a number of different types of mesophilic digesters being built and proposed on US dairies. The most prominent are 1) Complete mix, 2) Plug flow, and 3) Covered lagoon. In addition, experimentation is in place with "retained biomass" systems, with the goal of reducing retention time. As with any dairy system, the options must be weighed on an individual basis to determine the best fit for a particular dairy operation.

One important thing to note: Much has been said about the nutrient management benefits of digester systems. However, there is no scientific consensus on these benefits. While some have proposed that nutrient reduction happens as a part of digestion, this is only true of the carbon components of organic compounds. The same cannot be said of N, P, and K, which remain even as the chemistry around them changes. If nutrient export is the goal of a digester project, care must be taken to be sure the different characteristics of the digested manure are accounted for, and the capital and operating costs are included in all of the discussions.

A digester can be a useful component of many manure management plans. DariTech welcomes the opportunity to help you evaluate the potential for your dairy, and we look forward to hearing from you. 🐮



Employee Profile: Karl Wight

From route driver to sales leader

Karl Wight has been a part of DariTech for seventeen years. His determination and loyalty brought him from route driver, to the frontline of DariTech's sales and service team.

Born and raised in Everson, Washington, Karl has deep roots in the community. He grew up on a third generation homestead farm with his parents and two older siblings. Karl still resides in Everson with his wife Jodie and two sons Jayden and Luke.

Six months after DariTech opened it's doors for business, Karl jumped on board. It wasn't long before he progressed from driving into shipping, receiving, and inventory management.

Karl's area of focus - manure management - originally made up a very small portion of the service at DariTech. Now it's grown enough to expand to Rickreall, Oregon; Sunnyside, Washington and Lynden, Washington.

Thanks, Karl, for your years of dedicated service. Your upbeat attitude, positivity and sense of humor are a priceless part of our family at DariTech. We're proud to have you on the team!



What's new?

Bedding Solutions

DariTech is committed to bringing innovation to the needs of an ever changing industry. A new fabrication shop, devoted to the construction of our new bedding maker, will soon be in full swing. With the rising cost of sawdust, we've recognized the importance of an alternative bedding material, and this in-vessel composter shows great promise.

We're familiar with the benefits of using composted solids as bedding on the East side, and look forward to creating the same opportunities in the West. This

bedding maker is designed to operate all year long without impact from the weather, and provide dairymen with the highest quality, cost effective bedding for their cows.

So whether you're milking 200 cows or

2,000, we'll have a bedding system that fits your needs. Keep your eyes out for the first unit to roll out around the first of the year, and feel free to come in to tour the facility in the meanwhile. 🐮



Installations

Progress in your neck of the woods

Miltow Colony:

DariTech installs a complete pump/separation system to meet the needs of the colonies management system. Thank you Miltow Colony!



Forest Glen Jerseys:

Forest Glen Jerseys, McMinnville, OR: DariTech upgrades a drag-chain separator to an EYS Screw Press Separator. Thanks to the Bansens!

Western Valley Farm:

Mount Vernon, WA: DariTech installs a new EYS Screw Press Separator at Western Valley Farms in Mt. Vernon, Washington. Thank you Boons!



Livestock Line-up

Featuring the EYS Cowbrush

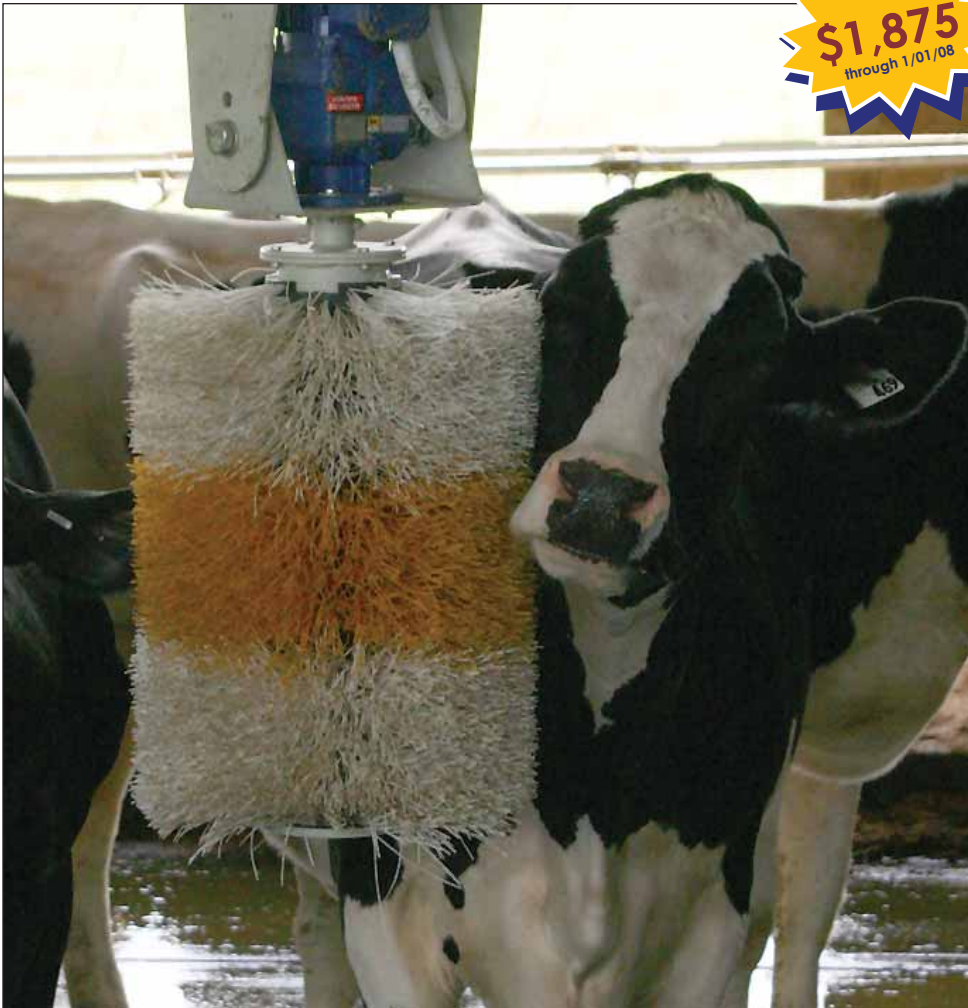
Due to the increased demand for quality livestock handling tools, we're proud to introduce an addition to the DariTech product line - our expansion into the Livestock handling market.

A happy cow is a productive cow, and expressing natural behavior is essential to a cow's happiness. By massaging, grooming, and cleaning your cows, our EYS Cow Brush raises their well-being and in turn, their feed intake and milk yield.

Like a tree or fence post, the EYS Cow

Brush is mounted vertically, making it easy for the cow to groom naturally. The Brush gently rotates when touched and stops and reverses directions if it encounters a certain level of resistance from the cow.

This added reversal feature ensures a safe grooming while thoroughly cleaning and removing pests. When the cow moves away, the brush stops by itself. This advance in grooming is a valuable upgrade for any loafing or free-stall dairy barn. 🐮



If cows could purr...

DariTech Animal Handling Equipment:



- **Tip Tanks**
 - Stainless Steel
 - Cleaner water means more milk



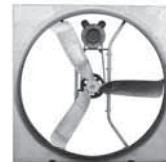
- **Loop Stalls & Stall Mattresses**



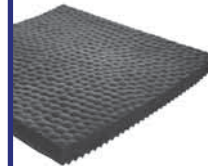
- Reduce sawdust usage with Mayo Mats.



- **Lock-Ups**
 - Heavy duty, hot-dipped galvanized



- **Fans**
 - Cooling & ventilation.



- **Rubber matting**
 - Cowlanes & holding pens.



- **Calf Hutches**
 - Durable
 - Easy to clean
 - Blocks UV rays

Installation at
Liberty Dairy in
Sunnyside WA,
Thank you
Bosma's!



Smart Separation

Steve Peerce

Over five years ago, in response to the dairy industry's demand for a reliable, self cleaning manure separator at a reasonable price, DariTech developed the concept of an internally fed rotary screen with an external spray bar. Now we are pleased and proud to introduce the DT-360, our new rotary screen manure separator.

The DT-360 has many features which are attractive to dairymen as they balance performance, reliability, labor and maintenance costs with the manure handling challenges facing today's dairies. Your time, as well as your crew's are best spent on tasks which make the dairy more productive. With the DT-360, time spent maintaining and cleaning screens has been greatly reduced. The automated spray bar can be configured for any timing sequence. This allows for ongoing cleaning of the screens, with minimal labor required.

Our belt driven screen, with the drive gear elevated away from the splatter is

simply the most superior system on the market. Coupled with idler wheels with sealed stainless bearings, the DT-360 promises extended periods of maintenance free operation, with service that is simple and inexpensive to perform. The DT-360 is as trouble free as a machine can get.

Because the DT-360 does not require the use of a screw to press the liquids through a screen, sand bedded dairies can enjoy the same low maintenance operation as dairies that use other beddings. The same can be said of dairies that have sand as a regular component of the environment, such as are commonly found throughout the West in the drier climates.

The DT-360 has versatility that extends to all reaches of manure management:

- Coarse screens with larger holes for primary separation are low cost alternatives in conventional flush or scrape systems. Just as flush dairies will no longer have to wash side hill screens regularly, sand bedded scrape dairies have separa-

tion opportunities they've never had before.

- Finer screens with smaller holes can help incorporate more separation options in various configurations. From secondary separation as part of a digester feeding operation, to ultra fine primary separation on lower flow rates, the size of the screen can be tailored to your goals and needs.

- We now even have mesh screens that can capture all but the smallest particles. Advanced manure treatment systems use these mesh screens to filter the particles that are troublesome to their downstream operations. Scrape dairies with screw presses as primary separators now have an affordable option to further separate the screw press effluent.

The DT-360 is another example of DariTech's promise of bringing the dairy industry cutting edge technology at an affordable price. We invite you to call for more information. 🐄

Barnyard Humor

Hear, Hear

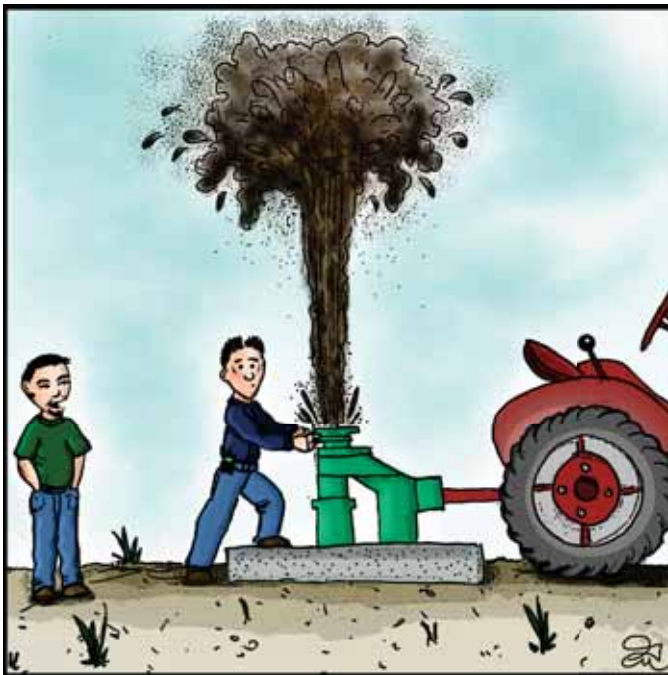
Two retired farmers were having coffee at a local diner. One gentleman spoke up, "I just got the best birthday gift ever - the finest hearing aid money can buy." The second man asked, "What kind is it?" The first man, looking at his watch, replied, "It's 2:30."

New Tricks...

Two men are arguing about who's dog is smarter....

First Man: "My dog is so smart, every morning he waits for the paper boy to come around and then he takes the newspaper and brings it to me. **Second Man:** "I know..." **First Man:** "How?" **Second Man:** "My dog told me."

Cow Poop Dave



Cow Poop Dave © 2007 Daritech Inc.

Karl: Yeah... Dave, shouldn't you close that valve FIRST?

Quality Manure Handling



Acurain
irrigation reels



Diesel manure and
irrigation pumps



Injection
Systems



Tankers



Slurrystore
tanks

See bottom of back cover for our full line card.

Used Equipment

SEPARATORS

- 4 FAN PSS2 780 Screw Press Separator.
- 1 FAN PSS 520 Screw Press Separator.
- 2 US Farms Side Hill Separators.
- 2 AG PRO Side Hill Separators.

IRRIGATION

- WATERMASTER Irrigation Reel with Diesel Booster.

AGITATORS

- LOEWEN 3-PT Agitator

PUMPS

- PTO DODA 3-PT Super 150 Transfer Pump.
- DODA Super ME120 30 HP Electric.

TANKERS

- HOULE Manure Tanker with Steering Tandem Axle. 4,200 Gallon.
- HOULE Manure Tanker with Steering. 9,500 Gallon.

INJECTORS

- 14' NO-TILL Injector.

DariLife

Cows • Land • Passion

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Product Line Card

MANURE MANAGEMENT

Separators

Biolynk System Mgmt.

Biolynk for Digesters

Scraper Rope

In-Vessel Composter

Houle

Hard Hose drag

Soft Hose drag

Application Equip.

Diesel Drive pumps

Electric Drive W/VFD

Agitators

Flush Valves & Controls

Conveyors

Doda

NUHN Tankers

IRRIGATION

Acurain Travelers

Small Travelers

PVC Piping

Irrigation Risers

Electric Water Pumps

Specialty Fittings

Diesel Water Pumps

P.T.O Water Pumps

LIVESTOCK HANDLING

E.Y.S. Cow Brush

Tip Tanks

Lock-Ups

Loop Stalls

Calf Hutches

Rubber Matting

Stall Mattresses

Plastic Paneling