

# DariLife

## NEWSLETTER

Dedicated to Livestock and Manure Handling in the Pacific Northwest

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## Welcome to DariTech

**F**ounded in 1990, DariTech has been a longtime member of the Northwest dairy community, providing equipment, service and support to Western Washington dairies.

Our dedication to grow and succeed with you is what led to the construction of a new fabrication shop.

The main focus of building another work center is for the construction of our new bedding maker. Currently, we're pleased to be using the new fa-

cility to build a prototype Struvite Crystallizer for Dr. Keith Bowers of WSU as he researches new methods of managing phosphorus in manure. Good luck Keith!

If you've been to DariTech lately, you will have noticed our front lawn has shrunk quite a bit! We have added on to our lot for additional storage space.

So if you don't believe we've been busy here, believe it! We've also been working on a new website that is more hands on and informational. Make sure to

look for it before the next newsletter comes out.

*Thank you and Happy Farming!*



# What is Compost?

About compost and composting

Will Brinton

*DariTech is pleased to introduce Will Brinton, one of the few true experts in compost science.*

The word “compost” comes from Latin and means “blend” or “mixture”. It is not the same as fertilizer, for it is a dark, humusy blend of stabilized ingredients and can be used for many purposes. In future articles we will look at various specific applications – including the emerging field of substitute animal beddings made from compost – and examine how managing the ingredients and the process is the key to success.

The uniqueness of composting lies in the fact that organic wastes are subjected to a form of controlled decomposition. This happens through the intense activity of microorganisms – principally aerobic bacteria- which “digest” the organic matter. This change in chemical state is “exothermic” which means it releases energy as heat. The heat acts as positive-feedback which enhances the rate of microbial activity, and also exerts a strong selective force since it attains a “thermophilic” heat range (>110°F ) where only certain heat tolerant bacteria can survive. This is the cause of the desired sanitation in that mesophilic pathogens like E. coli and Salmonella, and also weed seeds, perish. The thoroughness of the sanitation has to do with the length and quality of heating, but very importantly on the destruction of microbial food sources, and is greatly enhanced if piles are turned or rotated exposing the mass evenly to the heating.

## Types of compost

Two main forms of composts exist, related to their ingredients. The first is typical of backyard garden composts but practiced today on large scale to help communities deal with recycling grass clippings and leaf and yard residues. The other form of composting is mostly

agricultural with animal manures and sometimes food-processing wastes. Leaf and yard-waste composts decompose more slowly than manures do, and may not get as hot. They will eventually stabilize into a rich, mulch-like mass, which is popular as a horticultural additive in bark and peat-based container media. Farm composts are in contrast more concentrated in nutrients, and under proper conditions can stabilize quite rapidly. In other words, proper composting methods are very advantageous with manures to make safe, useful end-products.

## Soil Amendment

Compost provides humus and a small amount of many major and minor plant nutrients and is therefore considered a soil amendment. It helps supply soil organisms with needed carbon in the same way that plow-down of crops residues enhances soil. Therefore it is considered important for sustainable soil productivity. New types of compost from manures may play an important role as a substitute bedding material, which will be discussed in subsequent articles.

## Making compost

Compost production is being implemented ever more increasingly on large farm and commercial scales with a variety of types of equipment. It is very interesting to examine various technologies for composting, for many have unique advantages under specific circumstances, and none offers a single solution for everyone. With high energy costs, it is increasingly necessary to consider the “energy-intensiveness” of the composting technology as well. These and other topics will shape future discussions in this newsletter.

\*\*William Brinton is director of Woods End Laboratories ([www.woodsend.org](http://www.woodsend.org)) 800-451-0337 🐮



# Employee Profile: Zach Tresch

From service technician to sales leader

Zach Tresch joined the DariTech Team in September of 2002 as a service and installation technician. His ability and determination to help DariTech grow brought him to a leading role of Sales in the Oregon and Montana areas, as well as supervising the service technician team in Oregon.

Zach's area of Focus started out with only two customers. Now, thanks to Zach's hard work and dedication, his customer base has not stopped growing since.

Although Zach now resides in Salem, Oregon, he was born and raised in Lewistown MT, and DariTech welcomes the many Montana customers he has brought to our fold.

Zach feels his greatest accomplishment is becoming an integral part of the DariTech story. It's this commitment and determination that makes us here at DariTech proud to have Zach on our team!

Thanks, Zach, for your hard work and dedication. Your constructive attitude, enthusiasm and sense of humor are a wonderful part of the family at DariTech. We're thrilled to have you aboard!



## What's Hot?

### Diesel Drive vs Electric Drive

With the rising fuel costs affecting everything we all do, DariTech believes it makes sense to look for ways to make dairy operations more energy efficient. Land application of stored manure is an energy intensive process, and worth evaluation.

Do you use a diesel driven pump to empty your lagoon? If so, you may want to have a look at our VFD driven electric pumps. The energy efficiency of electric motors compared to diesel is well

known, more now than ever as diesel prices rise while electric power stays stable. Combine that with an opportunity to eliminate costly maintenance on your diesel engines, and a new electric lagoon pump might be an easy choice.

Radio controllers can be customized to your pumping operation, resulting in further savings in labor and energy. Give us a call, and let us help you evaluate the potential for your dairy.

Cost to pump 1,000,000 gallons Diesel vs. Electric @800gpm			
Diesel		Electric	
115	gallons	1550	kWh
\$4.00	\$\$/gal	\$0.10	\$\$/kWh
<b>\$460.00</b>		<b>\$155.33</b>	



# Installations

Progress in your neck of the woods

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## Gienger Farms:

**Gienger Farms, Tillamook, OR:**  
DariTech installed an Alley Flush System with DariTech Flush Valves.  
Thank you Gengers!



## Rollinger Farms:

**Rollinger Farms, Sunnyside, WA:**  
Rollingers purchased a 4000 gallon Nuhn Alley Vac Tanker with patent pending technology. Thanks to the Rollingers!

## Smit Dairy:

**Smit Dairy, Lynden, WA:**  
DariTech installed a Houle Alley Scraper System with Houles exclusive LFS control panel.  
Thank you to the Smits!



# Livestock Line-up

## Featuring Lock-ups

Let's face it. When it comes to lock-ups, people are looking for one thing only. Price!! Right? How cheap can I get these cows locked up. This sounds good in the beginning, but down the road you end up regretting it. By then it is too late and you are stuck with the decision to continue paying the high cost due to monthly repairs, or improperly operating lock-ups. The other option when buying lock-ups is spending the big bucks and busting your budget. This is not appealing either. What if you could have both? A quality built lock-up at a competitive price. This

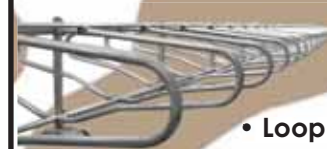
is what DariTech has achieved. Our new lock-ups are constructed with 2" square tubing on the top and bottom rails to eliminate the need for center supports and create a sturdier feel than the standard round tubing does. Our lock-ups are welded in black steel and hot dipped galvanized afterwards to prevent rusting that would normally occur at the welds. Cow comfort is also important, and with a 17" opening, cows can easily enter the lock-up to eat. Similar designed lock-ups could cost several more dollars per hole. See, you really can have both. Quality construction at a great value! 🐮



### DariTech Animal Handling Equipment:



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



- **Loop Stalls & Stall Mattresses**
  - Reduce sawdust usage with Mayo Mats.



- **Cow-Brush**
  - Auto-reversing
  - Fractional 220v horsepower



- **Fans**
  - Cooling & ventilation.



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



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

Construction at  
Mesa Dairy in  
Mesa, WA,  
Thank you  
Case VanderMeulen!



# Building Mesa Dairy

**D**ariTech is honored to have been chosen by Case VanderMeulen to design and build the manure handling system for his new Mesa Dairy. With Case's goals of high quality flush water for his feed lanes along with a high solids capture rate, DariTech proposed its Biolyнк system. Work is currently underway, and should be complete by the time you read this.

DariTech first developed the Biolyнк system to serve a number of purposes. For all the talk in the industry about digesters, filtration, microbes and other more advanced systems, the dairy needs to operate effectively. Therefore, first and foremost, Biolyнк provides the dairy a system with low maintenance and manpower requirements that provide immediate benefits such as:

- Solids removal- By first settling the effluent off a pri-

mary separator, the performance of the secondary separation is greatly enhanced

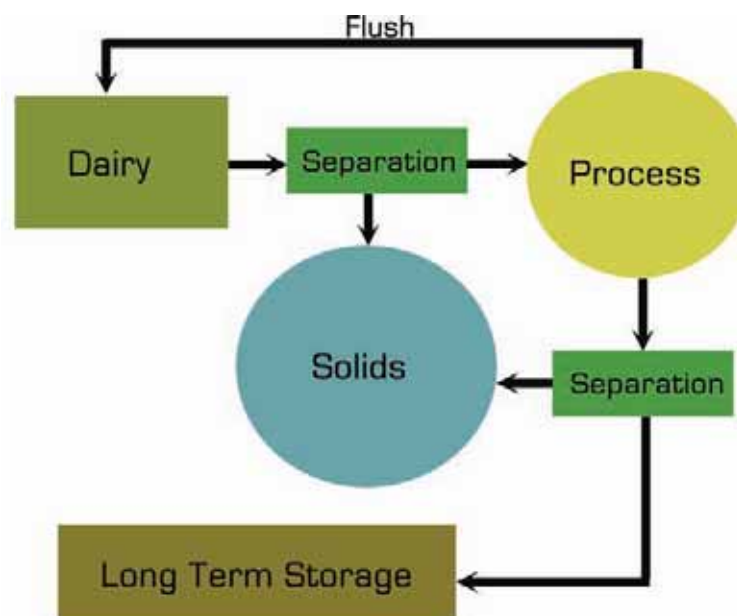
- Flush water consistency- Biolyнк provides the same high quality flush water all year long, resulting in cleaner lanes and healthier cows
- Added storage capacity- Because the

lagoons are no longer in the flush loop, there is no need to maintain minimum levels, so they can be completely emptied at the start of storage season

The block diagram (left) shows a sample Biolyнк system to manage day to day dairy operations. The central component of any Biolyнк system is the

Process Tank. A correctly designed Process Tank causes flush water to rise away from settling solids, and settled solids to be easily removed to secondary separation.

Biolyнк is especially well suited to adaptations which effectively thicken and feed flush manure for systems such as anaerobic digesters. Give us a call, and we'll be glad to show you our Biolyнк systems in action. Congratulations to Case on the new Mesa Dairy! 🐮



# Barnyard Humor

A man is driving when he spots a farmer standing in the middle of a huge field. He pulls over and notices that the farmer is just standing there, doing nothing. The man gets out of the car, walks to the farmer and asks, "Excuse me mister, but what are you doing?"

The farmer replies, "I'm trying to win a Nobel Prize."

"How?" asks the man, puzzled.

"Well, I heard they give the Nobel Prize . . . to people who are out standing in their field."



A farmer was milking his cow. Right when he was just getting a good rhythm, a bug flew in and circled his head then flew into the cow's ear. The farmer didn't think much of it, until the bug squirted out into his bucket.

It went in one ear and out the *udder*.

## Cow Poop Dave

## Used Equipment



Cow Poop Dave © 2008 Daritech Inc.

**Karl:** Uh... Dave, that's like the third pair today!

### 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.
- 1 BAUER Screw Press Separator.

### PUMPS

- PTO DODA 3-PT Super 150 Transfer Pump.

### TANKERS

- HOULE Manure Tanker with Steering, 9,500 Gallon.

### INJECTORS

- 14' NO-TILL Injector.

## Quality Manure Handling

See bottom of back cover for our full line card.



Acurain irrigation reels

Diesel manure and irrigation pumps



Tankers

Injection Systems



Slurrystore tanks

# DariLife

Cows • Land • Passion

DariTech Inc.  
Lynden, WA  
8540 Benson Rd.  
Lynden, WA 98264



## Lynden, WA

Service: (360) 354-6900  
Fax: (360) 354-7522  
8540 Benson Rd.  
Lynden, WA 98264

## Karl Wight

Sales  
(360) 815-5296  
karl@daritech.com

## Dave DeWaard

(360) 815-5295  
dave@daritech.com

## Sunnyside, WA

Service: (509) 839-3100  
Fax: (509) 837-6188  
120 Warehouse Ave.  
Sunnyside, WA 98944

## Bryan VanBeek

Sales  
(360) 410-1310  
or (509) 391-0348  
bryan@daritech.com

## Landon Schilperoort

Service  
(509) 391-0159  
landon@daritech.com

## Rickreall, OR

Service: (503) 831-0409  
Fax: (503) 831-0410  
9525 Rickreall Rd.  
Rickreall, OR 97371-0034

## Zach Tresch

Sales  
(503) 991-6512  
zach@daritech.com

## Andy Ward

Service  
(503) 991-6336  
andy@daritech.com

## Product Line Card

### MANURE MANAGEMENT

Separators  
Biolyнк System Mgmt.  
Biolyнк 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