

DariLife

NEWSLETTER

DARITECH
Cows • Land • Passion

October 2008
Volume 2 - Issue 3

Dedicated to Livestock and Manure Handling in the Pacific Northwest

Separation

Made Simple

As we go to print with our 4th newsletter, we'd like to express our appreciation of your business, and thank you for taking the time to read up on what is happening at DariTech. We hope you find a useful nugget of information, if not a chuckle or two.

This issue is largely devoted to manure separation. Faced with rising fertilizer and application costs, it's more important than ever to efficiently manage your manure. We've come a long way from the days we first learned that the best way to get solids out of a lagoon is to not put them in there in the first place. Manure in the lagoon without the solids is easier to agitate and pump and the solids aren't there to smother the grass. The result is ease of management and better crop growth.

As you'll see inside:

- We've become more adept at directly targeting nutrients where they'll do the most good. Separation allows for more precise management of those nutrients.
- Advanced and cost effective separation techniques allow flushing select areas of scrape dairies.
- Composting separated solids allows for recycling of manure for high quality bedding for your cows.

Whether you currently separate and are looking for higher solids or nutrient capture, or are considering it for the first time, there are numerous reasons to consider a separation system from DariTech. As you'll see on the Installations page, DariTech designs custom separation systems suited for your dairy.

Thanks from all of us for your continued business, and happy reading!

IN THIS ISSUE

Guest Column

We would like to thank Dave Haggith and N3 for the great article concerning the value of manure. Read all about how to capitalize from it's value on **page 2**.



Biolyнк at Edaleen

Edaleen Dairy Biolyнк shows how scrape dairies can have high quality flush for their holding pens on **page 6**.



Employee Profile

In this issue we feature Brian TeVelde in our Employee Profile. Find out more about Brian and his passion for DariTech on **page 3**.



Also in this issue:

- Find out what's hot this season and what the thing is to buy.....pg 3
- Look for DariTech installations in your neck of the woods!.....pg 4
- Read up on DariTech's new Calf-Tel Calf-Hutches.....pg 5
- Check out our classifieds section to see what's for sale.....pg 7

The Value of Manure



Dave Haggith

Nitrogen is a unique element in agriculture. Once a crop is in a good moist seedbed there is little else that drives yield and crop quality as much as nitrogen. World-over, nitrogen has a huge impact on food production, in many instances separating feast and famine. Fertilizer value has historically followed oil price as its manufacture consumes a lot of energy. In North American livestock farming we are often in the luxurious position of having surplus Nitrogen, Phosphorus and Potassium. Recent rapid increases in energy costs have driven up fertilizer prices and they are likely to stay high for the foreseeable future. These high prices are going to be compounded by high crop prices, which help to justify fertilizer use. Whether you use the manure yourself or export it to other farmers, there has been an increase in the value of your manure.

Manure is naturally higher in P&K than Nitrogen in terms of balance with the growing needs of forage crops. Most Nutrient Management Plans balance nitrogen needs for crops as this is the most environmentally active nutrient. However, applying manure on this basis will lead to over application of P&K. Most dairy fields with a history of heavy manure applications could successfully farm with only nitrogen applications for the next couple of decades without seeing crop yields decline.

In pure fertilizer values, a six hundred cow dairy, is producing \$90,000-\$110,000 worth of Nitrogen, \$20,000-\$23,000 worth of Phosphorus and \$40,000-\$45,000 worth of Potash. Add in the value of Sulfur, magnesium and the minor elements and the total comes to over \$200,000. As you plan your manure applications to your fields, it's worth noting that careful planning along with efficient application has more potential value than ever.

So how do you capitalize on the value of your manure?

- Look hard at making manure use more efficient. Look at methods and machinery to reduce application losses, match timing and rates to crop uptake to minimize the need for commercial fertilizer.
- Look at changing your manure handling techniques to more closely meet your needs: Separation helps to produce a liquid that won't smother grass even over multiple applications; Systems are available to draw Phosphorus off in a more concentrated form; Agitation allows a complete mix of the available nutrients; multiple pond systems produce manures with different balances of nutrients;

- Composting makes organically bound nutrients more crop available. This could be of particular interest to those looking to replace sawdust bedding with composted solids
- Solids are worth \$10-15 per ton off the separator, more if you have advanced separation techniques. Composting them burns off some nitrogen but concentrates the other nutrients.
- Land swaps with crop farmers can be a useful way of moving manure onto their ground – go into rent negotiations armed with the fertilizer values you intend to apply, you may use up the Nitrogen but the P&K applied will benefit future crops.
- It's less easy to quantify but the soil will also benefit from the addition of Organic Matter and the pH improvement from the Calcium and Magnesium in manure.

And finally, if you think that having high fall nitrates in the fall is just a problem for the WSDA inspector, try explaining to your banker why the Fertilizer loss in the fall was acceptable. Average cornfield fall nitrates were 122 lbs per acre last fall. With this spring's nitrogen prices of 78 cents per pound that amounts to \$100 per acre lost.



N3 is a privately owned consultancy providing Nutrient management planning and record keeping services. Please feel free to call us with any questions you might have.
N3 writes practical plans with practical solutions for many types of farm businesses including CAFO's, Dairies and Small Farms keeping the emphasis on making the most of your manure and minimizing pollution potential and cost.
N3 can put in place and implement a simple sampling and record keeping system that fulfills the requirements of your farm plan.
N3 will also accompany you on Government Inspections to help to interpret your records.
360-815-4851

Employee Profile: Brian TeVelde

Brian TeVelde has been a part of DariTech for nine years this November. Since the day he started, it has been a joy having him with our company. Brian has been helping with the service and installation of manure equipment since day one. He is very knowledgeable with this line of work, which makes him a great asset to DariTech.

Born in Bellingham, WA and raised in Lynden, WA, Brian has grown up in Whatcom County and knows the dairy industry. He is familiar with most farms in Whatcom County and is known to be a friendly face to all the farmers around this area.

Brian has been married to his wife, Jennifer, for 15 years now. They are proud to have a wonderful daughter, Kylie, who is now nine years old. In his spare time, Brian enjoys fishing and camping. He loves the outdoors and doing anything that involves being outside. Brian is thrilled to be a part of DariTech and to be serving the farmers of Whatcom County.

Thank you, Brian, for all of your hard work and dedicated service. Your positive attitude and sense of humor make you a joy to have here at DariTech. We're proud to have you on the team!



What's Hot?

Featuring the EYS bedding maker

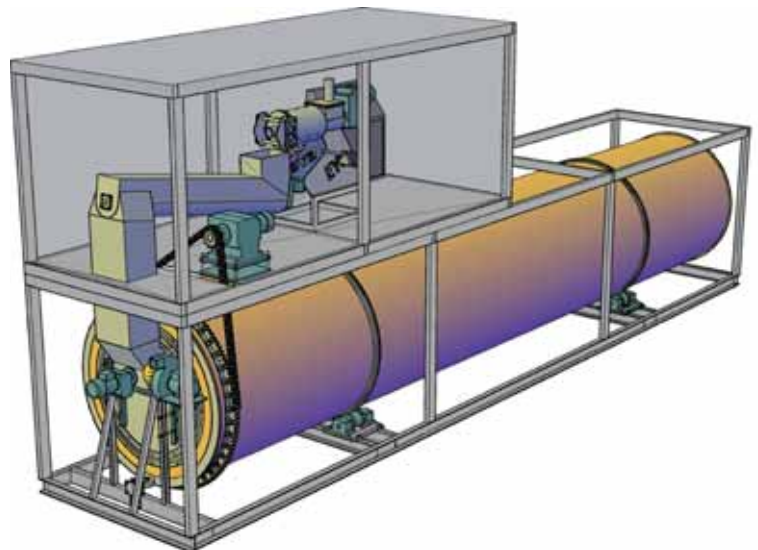
In the last issue, we introduced our new BeddingMaster, built right here in Lynden. Increasingly, the desire of dairies to cost effectively recycle their own manure solids for bedding has caused us to look for ways to expand our product line to meet the demand.

Daritech is looking forward to the introduction of a new line of bedding makers to complement the BeddingMaster. Manufactured overseas, the new EYS bedding maker is smaller than the BeddingMaster 8-40. Soon to be available, it will provide dairies with a rapid and cost effective transition to producing their own bedding.

With Daritech's technical guidance, the EYS bedding maker has been designed to bring more great value to dairies in the Northwest. The new self insulating EYS rotating composter, with a six foot inside diameter, will fit neatly and ship in a

standard container. Upon delivery to the dairy, the container can be returned to the shipper, and the bedding maker will be fully accessible for inspection and maintenance.

Give us a call to see how our wide line of bedding makers can fit in with your goals for your dairy!



Installations

Progress in your neck of the woods

Columbia River Dairy - Boardman, OR

Installation of DariTech's patented BioLynk system featuring DT360 separators. This has greatly increased the dairies' capture rate while giving them a higher quality flush.



Abbott Farms - Tillamook, OR

If you cruise through Tillamook County, there is no doubt you will see several Houle over the top agitation systems. These have helped the dairymen maintain, with ease, their above ground storage tanks.



Silvergata Dairy - Sumas, WA

Two stage separation system on scrape manure with sand bedding uses DT360 separators and roller press to increase capture rate and keep sand out of the lagoon!



Livestock Line-up

Featuring Calf Hutches

DariTech is proud to introduce the Calf-Tel calf hutches to our product line. Give us a call today and ask Ken to tell you more!

Superior Airflow & Ventilation

Calf-Tel housing systems are engineered for superior ventilation and come standard with the most innovative ventilation features in the industry. Calf-Tel housing systems provide a continual supply of fresh air to your calves without subjecting them to drafts.



Sun & UV Protection

Calf-Tel housing systems are totally opaque. Ultra-violet rays, destructive to ordinary translucent plastics and harmful to your calf's environment, do not penetrate Calf-Tel housing systems. This creates a healthier environment for the calves by eliminating the greenhouse effect and rapid unnatural shifts in temperature — reducing the build-up of condensation.



Strength & Durability

The strength and durability of Calf-Tel housing systems is unmatched. Constructed of ultra high molecular weight polyethylene, the strongest thermoplastic made – Calf-Tel housing systems are the strongest and most durable in the industry.



Health and bio-security

The polymer material does not absorb or promote bacterial growth. It is non-porous, impervious to manure acids and strong disinfectants resulting in improved calf health and performance, low mortality rates and reduced medicine and veterinary costs.



Economy & efficiency

Calf raisers have found Calf-Tel housing systems to be a more profitable housing option due to the efficiency, reliability and the low initial investment. Calf-Tel systems are light and manageable — our manufacturing process creates a nearly indestructible housing system without the extra weight.



DariTech Animal Handling Equipment:



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



- **Fans**
 - Cooling & ventilation.



- **Stall Mattresses**
 - Reduce sawdust usage with Mayo Mats.



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



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



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



- **Loop Stalls**
 - Minimizes interference in the lunge space

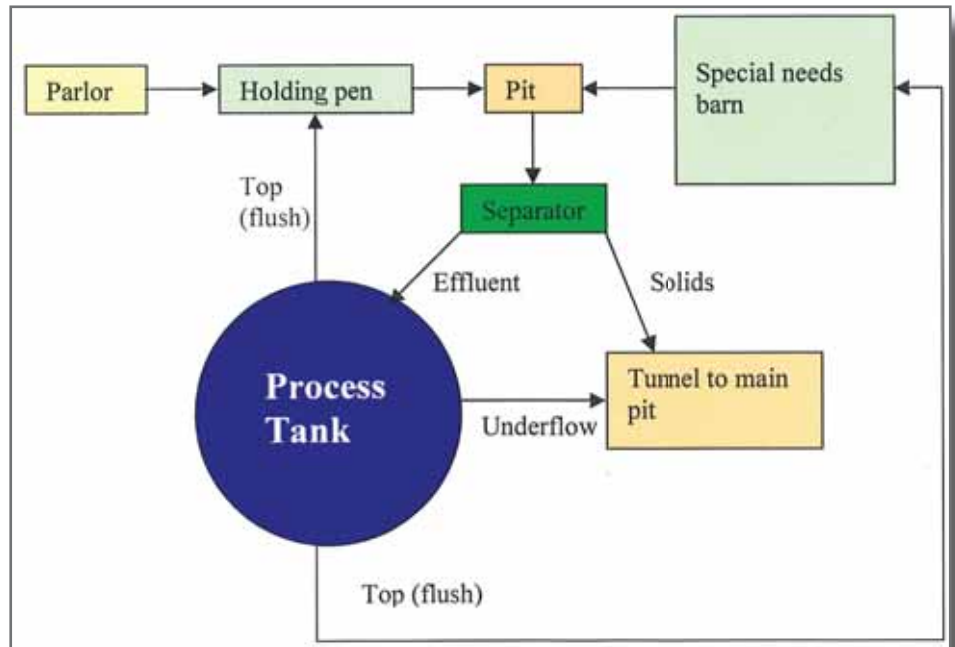


Edaleen Dairy Biolyнк

Previously, DariTech's Biolyнк systems have been limited to flush dairies with the high solids capture rates along with benefits it brings to the quality of flush water. How, you may ask, can Biolyнк work on a scrape dairy such as Edaleen's? Let us show you how it works.

Edaleen Dairy was ready to build a new special needs barn and had planned to tractor scrape the lanes. Automated scrapers such as they have in their freestall barns presented potentially dangerous situations for newborn calves and were not an option. Flushing out of the lagoon was undesirable due to odors and other health concerns related to reintroducing old, anaerobic manure in the special needs areas. Without another alternative, the dairy was left with tractor scraping, despite the disruption it could cause.

After looking over the plans, DariTech suggested that a Biolyнк system could recycle the fresh water used in the parlor to flush the special needs barn. Utilizing the fresh water from all of the cows to flush the manure from 10% of them would provide the dairy with a high quality flush made up only of fresh manure and water. As an added benefit, the same high quality flush water flushes the holding pen as well, replacing the lagoon water that had previously been used.



As shown in the diagram above, all of the collected solids wind up in the same tunnel that flumes two of the freestall barns. From there, it simply joins the remainder of the manure collected on the dairy in the main reception pit to be separated by the existing screw press separators.

Give us a call, we'd be glad to show you how you can use a Biolyнк system on your scrape dairy to better utilize and recycle the fresh water you're already using. 🐮



Barnyard Humor

A farmer gets sent to jail, and his wife is trying to hold the farm together until her husband can get out. She's not, however, very good at farm work, so she writes a letter to him in jail: "Dear sweetheart, I want to plant the potatoes. When is the best time to do it?"

The farmer writes back: "Honey don't go near that field. That's where all my guns are buried."

But, because he is in jail all of the farmer's mail is censored. So when the sheriff and his deputies read this, they all run out to the farm and dig up the entire potato field looking for guns. After two full days of digging, they don't find one single weapon.

The farmer then writes to his wife:
"Honey, now is when you should plant the potatoes."



Used Equipment

SEPARATORS

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

PUMPS

- VAUGHN 8FT Electric Pump.
- PTO HALCO Irrigation Pump.
- 5HP TSURUMI Submersible Pump.



INJECTORS

- 2 ELECTRIC Pit Agitators.



Karl: Uh Dave, did you forget the PTO shaft...again?!

Cow Poop Dave © 2008 DariTech Inc.

Quality Manure Handling



Acurain irrigation reels

Diesel manure and irrigation pumps



Tankers

Injection Systems



Slurrystore tanks

DariLife

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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 Van Beek

Sales
(360) 410-1310
bryan@daritech.com

Dennis Hobbs

Service
(509) 391-0030
dennis@daritech.com

Rickreall, OR

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

Zach Tresch

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

Andy Ward

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

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