

ISU Extension View

News from ISU Extension to Iowa Dairy Producers

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Chris Mondak



Larry Tranel



Dale Thoreson

Happy Holidays to You and Yours

This year was a successful year for many in the dairy business, especially in regards to milk prices and for most, crop yields as well. But like anything in life, it all depends on how you measure success.

For us in ISU Extension, we measure our success by the positive impact in working with you from making farm visits, visiting with you on the phone, in the office and nowadays over e-mail and the internet. We measure success in numbers served, facilities modernized, profits gained, perspectives changed, attitudes improved, aspirations received and achievements attained. Although often accomplished in seminars and field days, we still hold our ability to work with individual farm families high in value.

As many of you know, public budgets are extremely tight but our commitment to serving and helping our dairy clients succeed remains our top priority.

This issue is one not only of technical information, but also one of promoting the meeting season. Please take part in programs of interest to increase success and further define how you measure it as well.

Chris Mondak

ISU Extension Dairy Field Specialist, NW Iowa

Larry Tranel and Dale Thoreson

ISU Extension Dairy Field Specialists, NE Iowa

IOWA STATE UNIVERSITY
University Extension

Helping you become your best.

NE Iowa Dairy Days, 2005

The Dairy Team is once again hosting Dairy Days. Sessions will include:

- **Modernizing Your Dairy:** Making things work for the cows, people, and profits!
- **"Cow Stressors ---- Control and Response"** What are the cow stressors on the farm? What to look for? Is the cost to avoid a stress worth the investment? We have a choice in future-- It's all about cow comfort!
- **Monitoring Reproduction: The Old, New, and Invisible** (can't monitor what can't see!)
- **Forages: Agronomics of Alfalfa Quality.** How alfalfa may be influenced by variety, soil fertility, population, harvest (date, time of day, height), maturity, insects, disease, and weeds.
- **Salmonella & Crypto:** update by local vets!
- **Update on National ID** initiatives/programs.

Dairy days will be at the following locations/dates:

January 24	Civic Center,	Waverly
January 25	Knights of Columbus Hall,	Elma
January 26	Dairy Foundation Center,	Calmar
January 31	Avalon Supper Club	Rickardsville
February 1	American Legion Hall (tentative)	Ryan

Presenters will include local veterinarians and Dairy field and campus specialists from Iowa State University Extension. Dairy Days will run from 10 am – 3 pm with exhibitors present at 9:30 am, through the noon hour and after the meeting. A \$10 registration fee will cover meals and proceedings costs. Vouchers may be available from your local agri – service providers.

ISU Extension DAIRY TEAM
"Bringing Profits to Life"



**NE Iowa Dairy Extension
Field Specialists**

Dairy/Beef and Forages

- Dale Thoreson, 319-267-2707
- Larry Tranel, 563-583-6496

Farm Management, NE

- Robert Tigner, 641-394-2174

Crop Management, NE

- Brian Lang, 563-382-2949
- George Cummins, 641-228-1453

State Dairy Specialists:

- Dr. Lee Kilmer
- Dr. Leo Timms

Extension programs are available to all without regard to race, color,
national origin, religion, sex, age or disability.

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Year-end Tax Planning-2004

Robert Tigner, Farm Management Field Specialist

This year has been a roller coaster for milk, feed and grain prices. High corn and soybean prices for the first half of 2004 led to high feed bills for dairy producers, but also the possibility that some grain has been sold at very good prices. Then we had a record breaking Class III milk price although it didn't necessarily translate to milk checks. This article covers a few tax planning strategies.

The purchase of capital items gives several tax reduction benefits. The Section 179 'capital expense write-off election' was raised to \$102,000 for 2004. first-year depreciation has been increased to 50% for qualified new property acquired after May 5, 2003. This deduction is claimed after the Section 179 election but before regular depreciation. But, if more than 40% of newly acquired assets are bought in the last quarter of the year, the mid-year depreciation calculation will be used. This will reduce somewhat the tax reduction benefit of capital assets now.

A couple of thoughts on using capital purchases to reduce tax liability. Be certain the purchase also makes sense for business reasons. For, instance, will the purchase increase productivity or reduce cost. If your current combine needs lots of repair, more than its worth, or it takes longer than a new one would and your cost of harvest, including an ownership charge, goes down, it may make sense to purchase the new machine. Be careful that the farm can cash flow the combine payments in lower price years though.

A few other tidbits to think about following. Don't forget to use pension and IRA contributions. There are limits to the tax benefits but can be used by every producer. Also for longer term planning, retirement accounts provide the advantage of building retirement income without tax consequences until you retire. Retirees may be very glad they made those retirement contributions by the time they decide to retire. The cost of living during the retirement certainly seems to be going up faster than social security.

Speaking of social security, the maximum earnings subject to self-employment taxes is up to \$87,900 now. Also, the IRS is successfully re-classifying cash rent payments to spouses as earned income, thus subject to self-employment tax. There are several other items that can impact tax liabilities. Income averaging for 3 years and 5-year operating loss carryback are two that need to be reviewed by your tax preparer with you. Also, be aware that health insurance premium

deductibility is now 100%; this could be a large deduction for some.

If you would like to work on tax "what-if" scenarios, a document that helps estimate tax liability can be downloaded from a University of Missouri web site: <http://agebb.missouri.edu/agtax/2004est1.pdf>.

Finally, don't let short-term tax reduction strategies put the future of the business at risk. Large debt built-up over the years to avoid taxes may be more dangerous to the business' future than paying the tax bill.

ISU Dairy Farm Moo-ing Forward

Planning continues to move forward for a new dairy facility that will serve as a replacement for the old Iowa State University dairy farm that was closed in the fall of 2003. The new farm will serve the teaching and research needs of the Department of Animal Science and will be located just a few miles from the old farm site south of the Ames City limits. The current plans consist of 500 lactating cows (350 Holsteins, 50 Brown Swiss and 50 Jerseys with the remaining 50 being a combination of Ayrshires, Guernseys and Milking Shorthorns) plus replacements.

Included also are a separate hospital barn, a dry cow - transition barn, a maternity barn, a calf barn, and three replacement heifer barns. In addition, there will be two multi-use classrooms and one student-animal interaction classroom, several labs, and the usual offices, break room, and locker rooms.

We have been meeting every other week with the engineers (Curry-Wille & Associates) and architects (OPN Architects, Inc.) to identify what's needed to allow us to achieve our teaching and research objectives, yet contain operating costs so that the farm can generate a profit. The current time-line calls for the initial planning to be completed within the next few months and approved by the Board of Regents, the blueprints will be developed, the project will be sent out for bids, and contracts awarded. Our hope is to break ground late next summer (2005) with completion in the first half of 2007.

Iowa State has had a dairy breeding research farm on the south edge of Ankeny for over 50 years. This herd currently consists of 300 plus cows and will be closed and the animals will be moved to the new farm once it is completed. The Ankeny farm consists of just over 1,000 acres and is located well within the city limits. This land will be sold in parcels with the proceeds being used to fund the new dairy facility.

Help Doc! My cows are LOOSE!!!”

Chris Mondak, DVM

ISU Extension Dairy Field Specialist

We can all chuckle when we imagine a dairy veterinarian’s momentary confusion when the frantic call comes in to help solve a problem of “loose” cows: Are they breaking out of the corral to run down the lane to the neighbors, or are they spray-painting the inside of the barn with scours? In reality, the problem situation of scours in calves or cows is never a laughing matter. It is frustrating, challenging, and costly. This article is the first in a series of articles that will focus on dealing with scours in dairy cows and calves. Scours caused by the bacteria *Salmonella* is the subject of the first article, and it is based on information recently posted in [Bovine Veterinarian](#), October 2004.

Understanding how to recognize, prevent, and treat salmonellosis is important. Besides causing financial losses from dairy animal illness and death, it is a condition that poses a human health issue. Keep these **general points** in mind:

- It is caused by salmonella bacteria that are commonly found wherever there is feces or manure – so it’s a safe bet that the causative bacteria is present in some degree on most livestock operations.
- It can cause illness and death in people: In other words, it is zoonotic, meaning it can be transmitted from infected animals to humans and from infected humans to animals.
- It can create a chronic condition in infected cows and humans, setting them up to be carriers that will constantly or intermittently shed salmonella bacteria into the dairy environment.

Here are some good questions dairy producers might ask about the **specifics of this disease**:

What does salmonellosis look like? When should I suspect salmonella as a reason for scours in my calves or cows?

Calves infected with salmonella will show signs of fever, weakness or inability to stand, and scours that is yellow, watery, and foul-smelling. The scours may be tinged with blood, and a mucous or fibrin cast. Some calves may die.

Cows infected with salmonella often have a high fever (106-108), will look depressed and dehydrated, and will have foul-smelling scours. Cows go off-feed, and milk production drops drastically. Some cows may die.

Which animals are prime targets for attack by salmonella bacteria?

These are the animals at highest risk for salmonellosis:

- Calves, because their immune systems are naïve. Calves that did not get adequate colostrum in time, or had a difficult birth are especially vulnerable.
- Fresh cows, because they are undergoing post-calving stress and hormonal changes.
- Cows with subclinical or clinical rumen acidosis, because rumen acidosis suppresses immune system functions.
- Heat-stressed and over-crowded animals.

What should I do if I suspect salmonellosis?

What are the best ways to respond to an outbreak?

Call your veterinarian ASAP. There are many strains of salmonella bacteria, and identifying what you have on your farm will help the guide treatment choices, may help track down the source of the problem, and can help monitoring follow-ups. Your vet can take samples for lab analysis, and can help direct the investigation to find out the source(s) of the problem.

Early and aggressive supportive treatments may be necessary to prevent widespread death losses. Some salmonella bacteria are resistant to some antibiotics – let your vet do lab analysis for culture and specificity to guide choice of antibiotic treatments.

Treatment schemes may include the following:

- Oral and IV fluids
- Anti-inflammatory medications
- Antibiotics

Outbreak investigation should be thorough to find the dairy animal, human source, or environmental sources of the problem. Be willing to pay your veterinarian to do a thorough investigation.

Does vaccination against salmonellosis work?

As reported in a recent issue of [Bovine Veterinarian](#), Dr. Brad Smith states that vaccines should not be considered the primary defense against salmonellosis. In his work, he has found that for calves, killed vaccines are not effective; the modified-live Salmonella vaccine commercially available is more effective. In cows, commercial and autogenous killed vaccines give only short-term protection, and may not protect for the particular strain present on your farm. The antibodies from the vaccinated dam will benefit the calf for only the first 2-3 weeks of life. The take-home message is this: a vaccination program alone will not prevent or control Salmonella on your farm.

If this is so hard to treat and vaccinate against effectively, how can a dairy producer keep this disease from starting and from spreading in the first place?

Imagine these two words in bright, bold neon colors and flashing lights: SANITATION and BIOSECURITY. Recall this general point: salmonella is likely to be found on most farms. Why is it a problem on some farms and not on others?

Here's the key: Salmonella bacteria are **Opportunistic**: They take advantage of the "weakest links" in a dairy to multiply and infect animals.

Therefore, your strategy should be to look for and correct any "weak links" in your system:

- Are close-up and fresh cows kept away from the sick cows?
- Is the calving area clean? Are the calves removed promptly to a dry, warm place from exposure to adult cow manure?
- Are the calves fed adequate colostrum) in time? (Ideally, 4 quarts within the first 2 hours of birth, or 2 quarts immediately, and the remaining 2 quarts within 6-8 hours.)
- Is stored colostrum promptly refrigerated?
- Sick cows can shed salmonella in their milk. Is waste milk pasteurized? Are workers and family members informed not to drink raw milk?
- Are feeds and feedbunk areas kept free of contamination by dairy manure and rodent/ bird/ cat feces?
- Humans can be carriers of salmonella. Are workers and family members washing hands thoroughly before milking, and after using the restroom?
- Dairy cows can be carriers. Is enough care taken to screen replacement animals before purchase and placement into the herd?
- Have you discussed screening tests with your veterinarian. Serology can be useful in identifying carrier animals within your herd or in new replacements.

References: Bovine Veterinarian, October 2004
Large Animal Internal Medicine, Brad P. Smith, 1990.

California Dairy Trip

The NE Iowa Dairy Foundation is sponsoring a Dairy Tour to California, February 5-11, 2005. Cost per person is ~\$800 which includes airfare, transportation from Decorah, IA and admissions to World Ag Expo along with visits to other dairy and agricultural interests. For more information call Mark Hotvedt at the Dairy Center, 563-534-9957 ext. 107 or Jacque Hahn, Activity Coordinator, at 563-547-3434.

Four State Dairy Management Seminar

The Iowa location is at the Northeast Iowa Dairy Foundation's Dairy Center at Calmar Iowa on February 22, 2005. This conference features national speakers from Iowa, Illinois, Minnesota and Wisconsin. Topics this year they include discussions on Lighting Systems, use of Distillers Grains, Cross-breeding, and Milk Pasteurization. There will also be an agri-business trade show and opportunities to tour the Dairy Foundation's new calf barn. For information, contact Dale Thoreson at 319-267-2707 to register.

New & Transitioning Dairy Producers

All producers, especially those beginning or going through a transition in their operation, are invited to join the NE Iowa Dairy Foundation's program for New and Transitioning Dairy Producers on the next page.

Current, transitioning and new producers can register for one, several or all of the sessions by contacting the host facilitator at each site. The sessions will be available in the following locations via the Iowa Communications Network.

Locations (and host facilitator for registration):

1) NW Iowa Community College **Sheldon**, Chris Mondak 712-737-4230, cmondak@iastate.edu

2) NICC **Peosta** ICN1, Larry Tranel 563-583-6496, Ext. 14, tranel@iastate.edu

3) **Calmar** IT Building, Dave Lawstuen 563-534-9957, Ext 112, lawstued@nicc.edu

4) **Ames** ISU 1; Dr. Leo Timms 515-294-4522, ltimms@iastate.edu

5) **Red Oak** High School, Byron Leu, 641-472-4166, bleu@iastate.edu

6) **Osceola SW Community College**, Russ Bredahl 641-782-8426, rbredahl@iastate.edu

7) **Elgin** Public Library, Dale Thoreson, 319-267-2707, dthores@iastate.edu

Each of the sessions' speakers and topics are detailed on the following page. There are both credit and non-credit options available. The NE Iowa Dairy Foundation is providing free scholarships to all current and prospective producers in NE Iowa. There may be a small fee at the Red Oak and Osceola sites. Please call the site facilitator for more information.

NE Iowa Dairy Foundation's New and Transitioning Dairy Producer Program

Advanced Dairy Systems Management 201:

Each session offered from 1:00-3:15 pm, Wednesdays at various locations on previous page.

Session 1: How Much Money Can We Make Milking Cows? January 19, 2005

Larry Tranel, along with dairy producers Dale Gaul, Mike Scott and Todd Bushman will detail financial pictures of Model Farms netting good profits per person annually with a decent quality of life as well.

Session 2: How and Why I Got Started Dairying Jan 26, 2005

Larry Tranel and Dave Lawstuen, along with dairy producers Heidi Lantzky and Jason Steinlage will detail beginning their dairy career paths via sharemilking and cash rent/buy feed options.

Session 3: Nutrition Strategies for ALL Dairies to Consider Feb 2, 2005

Lee Kilmer and Dave Lawstuen, along with dairy producers, Jim Hageman, grazier and Todd Hendrickson, confinement operator will detail their feeding focus to optimize milk production using a moderate investment approach.

Session 4 : Nutrition Strategies for ALL Dairies to Consider Feb 9, 2005

Dale Thoreson and Dave Lawstuen, along with a dairy nutritionist and Bruce Telleen, confinement dairy operator will detail their feeding focuses to optimize milk production. Discussions will include TMR, One-Shot Rations, In-Parlor Feeding, along with other current nutrition topics.

Session 5: Alternative Forage Production Systems for Grazing and Storage Feb 16, 2005

Brian Lang and Larry Tranel, along with dairy producers Jed Becker and Joel Kurtenbach will detail pasture management and confinement feeding strategies looking at forage production, variety selection, forage crop cost comparison, storage and other cost-effective practices.

Session 6: Integrated Herd Health Feb 23, 2005

Leo Timms and Chris Harvey, DVM will discuss essential elements to a herd health program for new operations including cattle buying protocol, disease prevention, milk quality & transition cow management.

Session 7: Milk Quality/Herd Health Barn Meetings near Calmar and Dubuque Mar 2, 2005

Session 8: Milking/Housing Facility Tour Week throughout NE Iowa Mar 9, 2005

Session 9: Maintaining Quality of Life, Cow Comfort and Dry Matter Intake in Cost Effective Facilities Mar 16, 2005

Dale Thoreson and Larry Tranel, along with dairy producers Nick Rolling and Mike Koester will detail lower cost, yet effective parlors, freestalls and feeding systems.

Session 10: Heifer Development and Transition Cow Management Mar 23, 2005

Dale Thoreson, Howard Tyler and Jennifer Bentley will present fundamentals of these critical issues for profitability in confinement and grazing issues.

Session 11: Dairy Breeding and Genetic Selection Mar 30, 2005

Dave Lawstuen and Leo Timms, along with dairy producer Randy Hanson, will discuss breeding management protocol, genetic selection, timed programs, cross-breeding and other issues of interest.

Session 12: Developing a Financial and Operational Management Plan Apr 6, 2005

Larry Tranel, Robert Tigner and dairy producer Dale Hinkley will describe business arrangement plans, while ag loan officer, Greg Hoefer, Peosta will discuss issues of concern with obtaining financing for beginning operations.

Session 13. Marketing Your Milk Apr 13, 2005

Kevin Bernhardt and Robert Tigner, along with producer Mark Schmitt will detail avenues for attaining higher milk prices and/or reducing risk through judicious use of milk marketing tools.

Session 14. Resources and Tools for New Dairy Producers Apr 20, 2005

A consortium of dairy educators along with Jim Ranum, NRCS, Bill Meyer, FSA and agri-business personnel Ron Lenth and Ted Koehler will describe resources and tools to help reach their clients goals of profit and quality of life.

Session 15: Pasture/Forage Tours Apr 27, 2005

ALL New, Current and Transitioning Dairy Producers are encouraged to attend one or all of the sessions.

For more information contact Dave Lawstuen at 563-534-9957, Ext 112 or Larry Tranel at 563-583-6496 or your site coordinator listed on the previous page.

Dealing With 2004 Low Quality Forages

By Dale Thoreson

Each year, the dairy farmer starts out the growing season hoping and planning to make the best hay, haylage or baleage they've ever made. For the dairy "best" usually means at least 20% crude protein, 150 or better Relative Feed Value or Relative Feed Quality and stored at the proper moisture of under 20% for dry hay and 50 to 55 percent moisture for the silages.

Well, 2004, especially the first two cuttings of alfalfa certainly didn't set records on quality. The big question is "now, how do we manage these forages to make the best use of them?"

The most important step is to know what you have in both quality and quantity. That means we need to have these forages tested. Hay and haylage should be tested for moisture crude protein and energy. The energy test is not a direct process. In the equation for getting Relative Feed Value (RFV), we test for acid detergent fiber (ADF) and use one of several formulas to estimate energy content. This year, especially, this method may be very inaccurate.

A better system is the Relative Forage Quality (RFQ) test. Here we measure energy by determining the 48 hour digestibility of the Neutral Detergent Fiber (NDF) in the forage. Rain damaged hay may be considerably lower in energy because the soluble carbohydrates animals use for energy are subject to leaching by rainfall. However, forages grown under cooler conditions (certainly the case in 2004) are more highly digestible. And first cutting tends to have more digestible fiber than later cuts.

Laboratories are gearing up for the 48 hour in-vitro test needed to determine NDF digestibility. This test will cost more and take longer than the typical NIRS test currently run on forages. Once you have your forage tests back (and be sure to test each field or "lot" of each cutting), then decisions can be made which animal should receive which lots. RFQ uses the same numerical index as RFV. Early lactation cows and small calves will perform best if fed forages at 150 or greater RFQ. Mid or late lactation cows respond well to 125 to 150 RFQ and far-off dry cows and older heifers would be fed forages less than 125 RFQ.

But what if you don't have enough 150 RFQ forage until first cutting next year? There are several choices. One can purchase 150 RFQ hay. This is likely to be expensive, but may be a good strategy for the early lactation cows at a 5-10 pound of hay rate. Another alternative is to use a palatability agent to increase dry

matter intake of the forages. Common products used are molasses and now condensed distillers solubles (CDS). Molasses, added at 5% of the dry matter, on top of forages or in the TMR have been used for years to increase palatability. Condensed distillers soluble, which look like liquid molasses, will also enhance palatability. Molasses was listed at \$114.00 per ton and condensed distillers soluble at \$40/ton as this was written. Using a Relative Feed Value chart shows molasses are over priced at about \$85.00 per ton and the CDS are at par value. Again, about 5% of dry matter would be the suggested limit per cow.

Still another management practice is to limit the use of lower RFQ forage in early lactation cows by using more corn silage in the ration or using later cutting forages that may have been made with less rain delay. Another practice is to use soy hulls, beet pulp, or some distillers grains to get more energy from the level of digestible carbohydrates in these feeds.

Bottom line is that it will be most difficult to replace the energy lost from these lower quality forages. We need bigger intakes (palatability) or more readily digestible carbohydrates in the ration to get the cows to milk like they do when fed RFQ forages over 150.

Overall Conference for Rural Women

Women will learn to be winners during the Overall Conference for Rural Women featuring Michele Payn-Knoper, a champion for agriculture. The conference will be held January 21-22, 2005, at the Cedar Rapids Marriott Hotel. Payn-Knoper is a dairy breeder, a columnist, and founder of Cause Matters. She knows the trials faced by rural women in agriculture, and will inspire them with her dynamic presentation.

Thirty-two break-out sessions will be offered. Sessions related to the business of farming include value-added agriculture options, legal issues in agriculture, agri-tourism, and grain marketing.

Among sessions on personal development will be "Championing Agriculture (led by Payn-Knoper), "Who Gets Grandma's Yellow Pie Plate, and No Time to Cook? Ideas for feeding your family fast, yet nutritiously. Fun won't be forgotten with sessions on landscaping, quilting and digital photography.

Registrations are due January 7, 2005. For more information contact Linda Fischer, Benton County Extension Education Director, 319-472-4739, lefisch@iastate.edu.

Rumensin® Approved for Milk Cows

by Lee Kilmer

The U. S. Food and Drug Administration (FDA) has approved Rumensin® (monensin sodium) for use in both lactating and non-lactating dairy cows. It has been shown to improve the production of marketable solids-corrected milk per unit of feed intake or in other words, milk production efficiency is improved.

Rumensin® works by increasing the relative amount of propionic acid that is produced in the rumen relative to the amount of acetic or butyric acid produced.

Production of propionic acid produces less waste products (carbon dioxide and methane) than does the production of acetic or butyric acid, consequently, more of the feed energy ends up in a volatile fatty acid and is available for productive purposes.

VFA	% without Rumensin®	% with Rumensin®
Acetic acid	54	51
Butyric acid	11	8
Propionic acid	33	38
Other VFAs	2	3

Results from feeding Rumensin®

- More milk per lb. of feed during transition and early lactation. No change in dry matter intake while cows are in negative energy balance.
- More efficient use of feed in mid- and late lactation. Dry matter intake may decrease once cows are in positive energy balance.
- More efficient use of feed to restore or maintain body condition during the dry period.
- Rumensin® is approved to be fed at a rate of 11 g/ton to 22 g/ton. However, if you decide to feed Rumensin®, you should start at the 11 g/ton rate, then increase the level later if your situation warrants a higher feeding rate.
- Milkfat percentages will be lower, while milk protein percentages will be lower only at the 22 g/ton feeding level.

Parameter	Rumensin® level			
	0	11 g/ton	15 g/ton	22 g/ton
Avg. DMI	43.9	43.4	42.8 ^a	42.3 ^b
Milk yield	65.0	66.7	66.8	67.5 ^a
Milk fat %	3.65	3.53 ^a	3.49 ^b	3.38 ^b
Milk fat, lbs	2.34	2.34	2.33	2.27
Protein %	3.15	3.13	3.13	3.10 ^a
Protein, lbs	2.03	2.09	2.07	2.09
SCM ¹ , lbs	58.2	58.6	58.0	58.0

¹ Solids-corrected milk = milk lbs x [(12.24 x fat%) + (7.10 x protein%) + (6.35 x lactose%) - 0.0761]

^a P < 0.05; ^b P < 0.01

Farm Couples Getaway

If you have a farm operation in transition; want to better understand your farming and family relationships; or just feel the desire to "getaway" with your spouse and talk about your farm and family, you might want to attend a Farm Couples Getaway, Thursday, January 13th to Friday, January 14th at the Midway Hotel in Dubuque.

What farm couples have appreciated about past seminars:

"Interaction with other farm couples"

"The understanding of personality differences"

"New perspective on issues with long term goals"

"A time for us to reflect and plan"

"Time away from the farm and farm work"

"Realized we all had similar issues to deal with"

"Excellent leaders with skills and insights into improving my farm operation"

"How much fun it all was"

"The other couples really inspired us"

Act Now! The "getaway" will be open to the first 8 farm couples from NE Iowa that sign up to attend. A confirming letter will be sent. If you have questions or would like to register, please call Larry Tranel at 563-583-6496 or e-mail at tranel@iastate.edu. Registration deadline is one week prior to the "getaway" weekend. **T**here is a \$25 **cost** per couple to attend - the rest of the cost of refreshments, meals, lodging, instruction and materials are being covered by grant funds.

Please register early and be one of the couples to enjoy this Farm Couple Getaway.

Check-In Time: 12:30 p.m. Day 1

Ending Time: 3:00 p.m. Day 2

The state of your life is nothing more than a reflection of your state of mind. Dr. Wayne Dyer

“To Dip or Not to Dip?” That is the Question (“In Winter”)! By Leo Timms

Temperatures are dropping, snow flurries and wind, cracked fingers, and concerns about winter teat problems! We're there again, and the same old question pops up: To dip or not to dip? If so, with what? And what else can we do to stop winter teat problems? Let's start with why you dip!

The purpose of teat dipping is to provide a germicide that will kill mastitis germs and apply skin conditioners that keep teat skin and ends healthy. These are both essential to achieve to minimize mastitis risks! In winter, we want these same things but want to make sure that when we dip, we don't compromise one for another (frozen teats, more germs on teats). So initially (not just winter) you need a dip that has a proven germicide and excellent skin conditioning. We need to start and be here all the time. But now, it's winter? Here's the choices!

- **Use the same good germicide, skin conditioning dip you've been using!**
 - Most days, it's not cold enough to freeze the drop on the teat end so tally ho!
 - In situations (cold wind chills and/or direct exposure post milking), **dab or wick the drop off the end with a cloth towel.** This takes very little time and effort. **DO NOT DRY THE TEAT** as it removes the dip / conditioners. **This has been proven to work!**
 - **Never add extra conditioners to dip!** It screws up the formulation!
- **What about barrier dips?**
 - **Not recommended in very cold weather and exposure situations** since they take 20+ minutes to dry, thus increasing risks for teat end problems!
- **What about the winter formulation dips? High emollients and/or powder dips?**
 - **Designed to be used only during cold weather and high risk situations where teats will freeze or dehydrate quickly** (like your fingers cracking)!
 - Usually cost 2-3 times your regular dip (but evaluate potential returns, not just investment!)
 - **High emollient dips:** (usually > 50% skin conditioners): Minimizes initial freezing risk post milking due to slow evaporation; Make sure germicide is proven!; Teats stay wetter and oily longer so may increase risks with prolonged cold exposure or dirty conditions (sticky teats!)
 - **Powder based dips:** Function to keep teats dry (no liquid). New formulations have germicide and

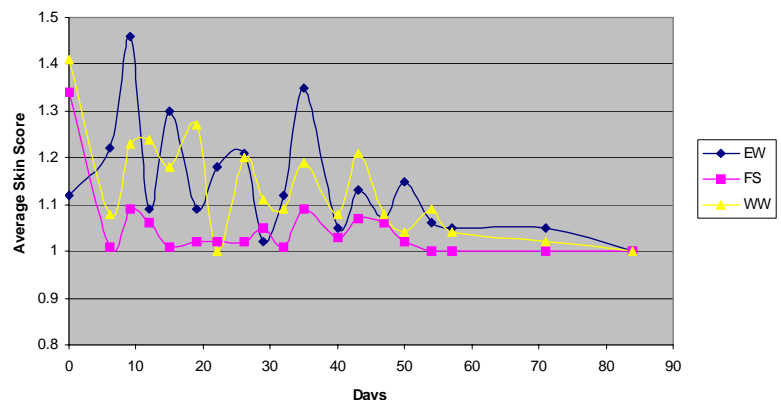
skin conditioners. Stalls, etc must be clean / dry, to avoid wicking on teats.

- **What about salves?**
 - **NOT THE BEST CHOICE!** High risks unless germicide and skin conditioning are proven!
 - Most germicides can be overcome by contamination!
 - Greasy hands, greasy teats, greasy equipment! A mess and a great way to spread things!
 - Can coat or trap infections; greasy feel can attract things (dirt, etc.!).
 - Research shows minimal or no effect (some detrimental) when more fluid salves are used.
 - If you decide to use, use sparingly (only on the risky area – teat end!)
- **What about quitting dipping and doing nothing else?**
 - **A POOR CHOICE OR NOT EVEN A CHOICE! HIGH RISK!**
 - Teats are still wet after milking; teat skin conditioners milked off; increased dehydration and cracking risks; Plus no contagious mastitis germicides!

So there are the choices! It's a sure thing that winter will come, a sure thing that teat end problems will occur (none of the above can totally stop everything), and a sure thing that the best way to deal with it is manage the risks. Weigh out the options above and pick the one that you can manage the best. Couple this to other management strategies such as minimizing direct wind exposure post milking, clean dry stalls to prevent chilling and organism growth, and proper milking procedures that minimize other teat stressors.

(Below is a graph from one of our recent ISU trials evaluating winter teat dips with high emollients. The graph shows teat skin scores. There are 3 separate barns (EW and WW are tie stall, FS = free stall). As can be seen, dips work differently depending on weather exposure, with a lot of fluctuation in skin condition even with these high emollient dips. They also work differently depending on barn and weather exposure.)

Combined Skin Data for 1% I2, 50% glycerin



Reducing Ammonia Nitrogen in Milking Center Wastewater and Feedlot Runoff

Normally ammonia nitrogen in feedlot runoff can be over 100 milligrams per liter (mg/L) according to Dan Meyer, ISU Ag Engineer field specialist in Fayette. The problem is even in low amounts ammonia nitrogen can kill fish.

Recently released research data over a five year period on Iowa State University's 380 head beef research farm shows reductions of 81% in ammonia nitrogen in their feedlot runoff by utilizing a diked grass filter with tile lines beneath it (a manure solids settling basin preceded the diked filter. The incoming manure from the settling basin was 109 mg/L and the outgoing liquid from the tile lines was about 21 mg/L.

Iowa State University Beef Center used a diked grass filter area of 120 feet by 350 feet with 3 foot dikes. The 3 foot high dikes correspond to holding a 25 year-24 hour storm event on the feedlot. This translates to 20% of the area of the feedlot. (The previously recommended feedlot runoff control design was a 1 square foot of feedlot area to 1 square foot of grass filter after a solids settling basin). The diked grass filter holds all the runoff until it soaks into the ground.

The ISU unit has three 4 inch tiles lines underneath the diked grass filter which are about 40 ft on center. The soil removes phosphorus and nitrogen and converts ammonia to nitrate which is much safer for fish. The total phosphorus drop through the diked grass filter was 77%.

This same concept can be used on dairy milking center wastewater especially where a parlor is involved. Since nothing happens in winter which could be for five months the diked grass filter could hold it. Normally figure about 25 square feet of grass filter per dairy cow. This translates to a usage of ¼ inch per day across the whole filter. This system could really help if several hundred feet of grass waterway isn't available before the wastewater reaches a creek. The ideal system would be for the wastewater to go through the diked grass filter and then flow through an additional length of grass filter.

There is a revised Farm- A-Syst bulletin called "Assessing Your Milking Center Wastewater Management" that was recently put together and is available through Farm Bureau or from the Fayette County Extension office.

One item that would be helpful is to have the grass established in the filter before draining or pumping liquids into it. Grass helps remove the nitrogen and phosphorus nutrients. The solids settling basin for a feedlot should be 1/30 the size of the feedlot. Include roof area if that drains through the settling basin too.

Many times the feedlot if concrete surfaced can be used for the solids settling basin. DNR requires a distance of 100 feet for deep wells and 200 feet for shallow wells to a settling basin and the same should be true for a grass filter. Your county office has bulletin PM 1909 for designing settling basins for open feedlots and bulletin PM 1919 for vegetative filter strips for open feedlot runoff treatment.

Other Iowa Dairy Meetings

- Dec 7 Dairy Production Records Workshop – Cherokee Extension Office, 11am-3pm
Dec 8 Dairy Production Records Workshop – NCC-Sheldon, Bldg A, 11am-3pm
- Jan 18 Dairywomen Peer Group meeting, Sheldon Family Table, 11:30–1:30; Sioux Center Pizza Ranch, 7:30- 9 pm
Jan 19 Sioux Area Dairy Peer Group
Jan 20 Cherokee Area Dairy Peer Group
- Feb 8 MN-IA Dairy Day. 10:00am to 3:00pm, American Legion Hall, Adams, MN
Feb 22 4-State Dairy Management conference, 10:00am to 3:00pm Dairy Foundation Center, Calmar
Feb 15 Worth-Mitchell DHI, 11:00am to 2:00pm REC, St. Ansgar
Feb 18 and 19, ISDA/ Iowa Holstein Association, Annual meeting, Holiday Inn, Amana
- Mar 8 ISU Dairy Days – NCC Sheldon, 10:45 – 3:15
Mar 9 ISU Dairy Days – WIT Cherokee, 10:45- 3:15
Mar 30-31 Central Plains Dairy Expo and National PDHGA Convention, Sioux Falls

Attend the Tri-State Dairy Summit

Iowa is part of the Tri-State Dairy Modernization effort and this year's dairy producer summit will be held at the Southwest Wisconsin Technical College in Fennimore, WI on December 14th beginning at 10 am.

Topics include Forage Storage—Bags, Bunkers or Bales; How Big Should My Parlor Be?; Pathways to Modernize (panel includes Wayne Kramer, dairy producer, Farley, Iowa); Manure: Cost or Opportunity; and Modernization Resources You Can Use. Additional Business Management Workshops will be held from 3:15 until 5 pm on Milk Marketing, Focus on Profits and Planning Your Modernization.

Cost is \$30 per person, \$10 for additional person same farm. To register or receive a brochure, contact Kevin Raisbeck at 1-800-362-3322, Extension 2511.
