

UNIVERSITY OF MINNESOTA

DAIRY

Initiatives

UNIVERSITY OF MINNESOTA DOCUMENTS

AUG 15 2000

MAGRA LIBRARY



N E W S L E T T E R

Contents

1

Minnesota's Dairy Crisis and You

3

Your Best Foot Forward

4

Don't Let Milk Prices Get You Down

6

Manure Treatment Systems

7

Bedding and Bacteria

8

Beyond the Bottom Line: Promoting Yourself as an Employer

11

Family Hot Line

SEE INSERT FOR CALENDAR OF EVENTS

Minnesota's Dairy Crisis and You

Minnesota's dairy industry is in the midst of a quiet crisis. Here's how you can help turn it around.

We have bad news and good news.

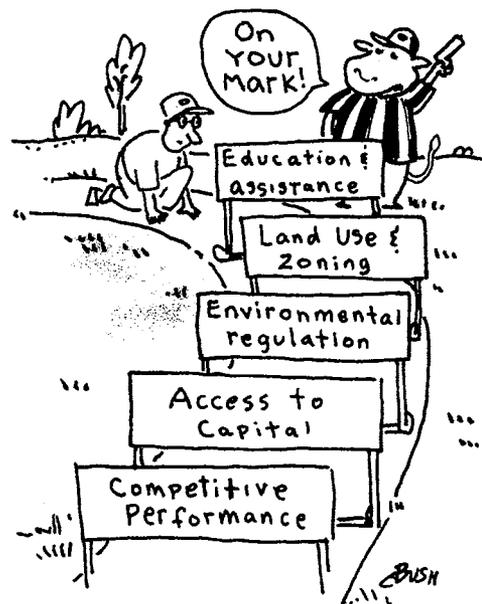
The bad news: Minnesota's dairy industry is in the midst of a quiet crisis. The number of farms is declining. So is milk production and market share compared to other states. Minnesota producers lag in accepting innovation and adapting to the changing economic and social environment. State and local laws and policies create roadblocks to change. An uncertain future makes processors, suppliers, and other members of the dairy industry infrastructure increasingly reluctant to focus their resources in this state.

The good news? First, Minnesota has lots of things going for it, dairywise—relatively inexpensive and good feed, abundant water, and committed families, to name just a few. Second, if they choose to, Minnesota dairy producers can turn the situation around. And if they do, it will benefit not only the producer, but ultimately the industry.

Those are some of the findings in *A Roadmap to the Future: Minnesota Dairy Climate Study and Strategic Plan*, a report prepared for the Minnesota Legislature by the Minnesota Department of Agriculture last spring. The report paints a sobering picture of the current status of Minnesota's dairy industry. At the same time, it also describes concrete changes that lawmakers, producers, and others can make to help Minnesota regain its reputation as one of the best dairy states in the nation.

The Challenges

According to the report, Minnesota's dairy industry faces five big challenges:



John Bush © 2000

- **Competitive performance.** Minnesota's best dairy producers are competitive in today's national market. However, many Minnesota producers are not. The reason? Outdated production and management practices.
- **Access to capital.** Traditional financing methods are not sufficient to get Minnesota farms back on track.
- **Environmental regulation.** Minnesota's environmental requirements are stricter than those of neighboring states. County and township rules add more layers of restriction and confusion.
- **Land use and zoning.** Land use policies are difficult to deal with because they vary from one place to another and change over time. They also tend to favor nonfarm activities over livestock production.
- **Education and assistance.** Dairy producers need help developing the management skills they'll need to survive in the years to come.

Continued on page 2

This archival publication may not reflect current scientific knowledge or recommendations.
Current information available from University of Minnesota Extension: <http://www.extension.umn.edu>.

Minnesota's Dairy Crisis and You

Continued from page 1

***** Facts and Stats

- Dairy production and processing in Minnesota employs more than 22,000 workers.
- Minnesota's share of the national dairy market declined from 8.3 percent in 1960 to 5.8 percent in 1999.
- The number of dairy farms in Minnesota has dropped by more than a third since 1993.
- The average herd size in Minnesota has grown 32 percent since 1993.
- Cows on Minnesota's least profitable dairy farms (the low 20 percent) produce an average of 5,000 pounds of milk per year less than those on the most profitable farms.

Action Plan

A Roadmap to the Future recommends three actions to revitalize Minnesota's dairy industry:

- **Support and promote reinvestment and modernization.** Laws, policies, and educational programs must make it easier for Minnesota dairy producers to invest in and modernize their facilities.
- **Improve the environmental permitting process.** Environmental laws and regulations should be consistent and clear. They should protect both the environment and the rights of producers, and reduce uncertainty by providing for review of proposed projects early in the game.
- **Educate.** Educational programs should be developed to help dairy producers learn to manage their operations more profitably and effectively.

How You Can Help

What can you do about this? Longtime University of Minnesota animal science faculty member Joe Conlin, who wrote the MDA report, offers some suggestions.

- **Recognize that change is needed.** If we want small family farms to survive, we must be willing to let new, more efficient ways of dairy farming exist alongside them. In other words, attitudes, management skills, and laws and policies must change to make it easier for farmers to adopt progressive ways of structuring and running their farms—including expanding.

If you're a traditional dairy producer and you like it that way, you may think this is a bad idea. In reality, it's probably the best thing that could happen to you. Why? Because in today's national market, we need progressive farms to help keep the state's dairy infrastructure from collapsing. If creameries, feed dealers, seed dealers, and others are to remain part of our rural communities, they need the reassurance these farms offer that dairy farming will remain a stable part of the state's economy. Making progressive farms part of the picture will make it easier, not harder, for traditional farms to survive.

- **Make your farm the best it can be.** This doesn't necessarily mean getting bigger; it does mean getting better. Start by clearly stating your needs and

goals, both financial and lifestyle. Next, determine what changes you have to make to meet those needs and goals. These will probably include becoming more efficient at what you do. And that will probably mean modernizing in some way.

- **Make your voice heard.** Become aware of policies and regulations that put Minnesota's dairy industry at a competitive disadvantage. Lobby your elected officials to change them.
- **Be environmentally responsible.** The more you can do to minimize your environmental impact, the less the perceived need for regulatory control.
- **Think outside the box.** Don't limit yourself to solving problems the way your parents and grandparents did. You're operating in a different world, so you need different tools. Learn and apply new techniques to improve your productivity and control your costs. Adopt cost-effective technologies. Restructure your business system if necessary. Emphasize quality milk production.
- **Learn more.** Conlin recommends that dairy farmers take time to read the report and understand what it will take to shape a brighter future for Minnesota's dairy industry. You can access *A Roadmap to the Future* as well as a shorter executive summary online at <http://www.ansci.umn.edu/dairy/>.

Why Minnesota Needs Innovative Farms

MINNESOTANS STRONGLY VALUE the traditional family farm. However, because of competition from other states, these farms can no longer support the state's dairy infrastructure—creameries, feed and seed dealers, and other suppliers—on their own.

That doesn't mean we can't have traditional farms. What it does mean is that we need to intersperse them with "anchor" farms—farms whose efficiency, management, production volume, and capital investment are at a level that can reassure dairy-related companies that they're here to stay.

Right now Minnesota's laws and policies tend to inhibit the development of these anchor farms. Many traditional dairy farmers think that's in their best interest. But it's not. If you want the milk truck to keep coming down your road, you need to support, not oppose, policy changes that make it easier for innovative farms to become part of the overall picture of dairying in the state.

Your Best Foot Forward

What does your operation say about dairy farming—and about you?

Folks just love being Rich and Nancy Micke's neighbors. Sure, there can be a bit of an odor issue when they spread manure from their 1,700-cow milking herd. And traffic gets a little backed up when they're moving machinery on the road. But the Mickes have made a point of taking pride in their operation, Gold Dust Dairy, and encouraging their neighbors to take pride in it too. Each year the eastern Wisconsin couple invites their neighbors—last summer, more than 1,000 of them—for a giant cookout and farm tour. After their taste of what dairy farming is all about, the visitors feel pretty good about the Mickes' operation, and about dairying in general.

"It's a real builder of common pride," says Gary Neubauer, dairy tech service veterinarian with Upjohn. Neubauer, who travels throughout the Midwest and Pacific Northwest, has seen it all, from shoddy, rundown farms to spotless, well-run operations that make everyone glad they're part of the community. He can't say enough about how important image is for both the individual producer and the dairy industry as a whole. If people can see that you are proud to be a dairy producer, they will respect and appreciate what you do. Neighbors will be glad you're around. Prospective employees will view you as a desirable employer. Your family members will be proud of their place in the community.

How can you help build your image? Neubauer offers these ideas:

- **Clean up your act.** Take a good look at your farm from the road. Does it look clean, tidy, and in good repair? Does it say, "I'm proud to be a dairy producer?" If not, spruce it up. "Those people who do that tend to be more successful and are more proactive in the dairy industry in promoting their products," Neubauer says.



In addition to hosting an annual picnic, Gold Dust Dairy says "We're proud of our farm!" with this two-story-tall roadside cow, which sports a cheese hat during football season and a wreath for the holidays.

- **Invest in a sign.** A bright, cheery sign with your farm's name on it reminds folks you are a real business, an important contributor to the local economy.
- **Invite groups in for tours.** Let community clubs and organizations know what dairy farming is like and what it does for your community and for America.

sors a free breakfast on a dairy farm each June—complete with dairy-promoting broadcasts on the local radio station. Invite nonfarming folks for breakfast or a picnic, complete with plenty of dairy products.

- **Take your message to schools.** Visit a classroom and "show and tell" the kids what dairying does for them. Bring everybody an ice cream bar or a yogurt cup and explain how the treat connects with what you do.
- **Connect your operation with a specific product.** Neubauer cites the example of an Idaho producer who keeps product samples on hand to remind employees and visitors what the operation is really all about. Find out what brands of dairy products contain your milk, then display those products where others can see and take pride in them.

If people can see that you are proud to be a dairy producer, they will respect and appreciate what you do.

- **Follow the golden rule.** "You just generally have to be aware every day of your neighbors and do to them what you'd want them to do to you," says MaryKay Staudinger of Blue Royal Farms, another "high-pride" Wisconsin dairy. Consider wind direction and neighbors' social calendars when spreading manure. Try not to leave globs of stuff on the road. Wave. Apologize when necessary. Say "thank you."
- **Join with others in your area in sponsoring a "day on the farm."** The New Ulm Farm City Hub Club, a community group formed to promote agriculture in southern Minnesota, spon-

sors a free breakfast on a dairy farm each June—complete with dairy-promoting broadcasts on the local radio station. Invite nonfarming folks for breakfast or a picnic, complete with plenty of dairy products.

"The take-home message is to get involved. We need to promote our products," Neubauer says. 🐄

Don't Let Milk Prices Get You Down

.....
You can still improve your profit when milk prices are low

JERRY STEUERNAGEL
 Department of Animal Science,
 University of Minnesota

Are low milk prices eating up your profit? You may think there is little you can do to change the price of milk sold. But there are a number of other factors contributing to profit that you can do something about.

The worksheet below can help you assess how various management changes in your herd can affect your profit, rank the relative merit of the various changes, and decide which changes to make.

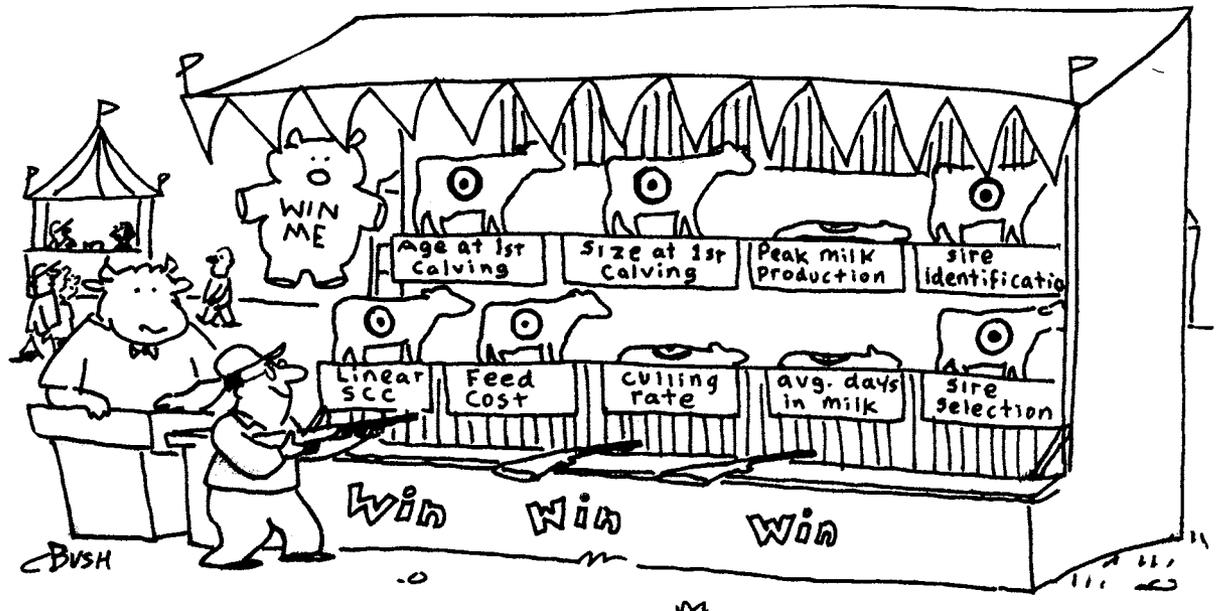
To use the worksheet:

1. Record the current average value for your herd under "My Goal."
2. Ask yourself, "If I really concentrate on this area of management, how much change can I make in my herd?" Fill in the answer on the second half of "My Goal." Make some notes: What two or three things can you do to make this change happen?
3. Calculate the dollar impact for your herd by multiplying the number of units of change you can make times the value per cow times the number of cows in your herd.

4. Repeat the process for each item. Then rank the changes from high to low impact.
5. Look at the items on the top of your list and check your notes on what you would change to achieve this impact. Estimate the cost of making the change and compare the cost with the dollar impact. Choose those changes that will increase your profit the most. *Warning: It is not valid to add up all the impacts, since changes in one area might affect another.*

When used recently by dairy producers in Carver and Dakota counties with herds ranging in size from 40 to 300 cows, the worksheet uncovered some impressive opportunities to improve profit. For example, improving somatic cell count was calculated to return \$619 to \$15,480 per herd per year. Improving peak milk in cows and heifers showed potential returns of \$1,600 to \$48,000 per herd per year.

More information on the impact of management changes is available at <http://www.ansci.umn.edu/dairy/>.



Management Change Impact Worksheet

LINEAR SCC

OPPORTUNITY: Decreasing herd average linear SCC one unit will result in a gain of \$86.00 per cow per year.

MY GOAL: Decrease herd average linear SCC from ____ units to ____ units

IMPACT: (units decrease) x \$86.00 x (# of cows) = \$ _____ per herd per year

COST: \$ _____ **PROFIT:** (subtract cost from impact) \$ _____ per herd per year

AGE AT FIRST CALVING

OPPORTUNITY: Decreasing average age at first calving by one month reduces rearing cost by \$20.00 per cow per year.

MY GOAL: Reduce age at first calving from ____ mo. to ____ mo.

IMPACT: (mo. decrease) x \$20.00 x (# of cows) = \$ _____ per herd per year

COST: \$ _____ **PROFIT:** (subtract cost from impact) \$ _____ per herd per year

SIZE AT FIRST CALVING

PROFIT OPPORTUNITY: Increasing average body weight at first calving by one pound will increase herd production \$0.20 per cow per year.

MY GOAL: Increase size at first calving from ____ lb. to ____ lb.

IMPACT: (lb. increase) x \$0.20 x (# of cows) = \$ _____ per herd per year

COST: \$ _____ **PROFIT:** (subtract cost from impact) \$ _____ per herd per year

CULLING RATE

OPPORTUNITY: Reducing the culling rate by 1% will reduce the replacement overhead by \$7.00 per cow per year.

MY GOAL: Reduce the culling rate from ____ % to ____ %

IMPACT: (% units reduction) x (\$7.00) x (# of cows) = \$ _____ per herd per year

COST: \$ _____ **PROFIT:** (subtract cost from impact) \$ _____ per herd per year

AVERAGE DAYS IN MILK

OPPORTUNITY: Reducing the herd average days in milk by one day will increase herd production \$8.00 per cow per year.

MY GOAL: Reduce the average days in milk from ____ days to ____ days

IMPACT: (days reduction) x (\$8.00) x (# of cows) = \$ _____ per herd per year

COST: \$ _____ **PROFIT:** (subtract cost from impact) \$ _____ per herd per year

SIRE IDENTIFICATION

OPPORTUNITY: Improving identification of herd sires by 1% will increase herd production by \$0.80 per cow per year.

MY GOAL: Improve sire identification from ____ % to ____ %

IMPACT: (% units improvement) x (\$0.80) x (# of cows) = \$ _____ per herd per year

COST: \$ _____ **PROFIT:** (subtract cost from impact) \$ _____ per herd per year

SIRE SELECTION

OPPORTUNITY: Improving sire selection one unit of PTA\$ or NM\$ will increase herd production by \$1.00 per cow per year.

MY GOAL: Improve sire selection from ____ units to ____ units

IMPACT: (units improvement) x (\$1.00) x (# of cows) = \$ _____ per herd per year

COST: \$ _____ **PROFIT:** (subtract cost from impact) \$ _____ per herd per year

PEAK MILK PRODUCTION

OPPORTUNITY: Increasing peak milk one pound will increase herd production by \$35.00 per cow per year.

MY GOAL: Increase peak milk from ____ lb. to ____ lb.

IMPACT: (lb. increase) x (\$35.00) x (# of cows) = \$ _____ per herd per year

COST: \$ _____ **PROFIT:** (subtract cost from impact) \$ _____ per herd per year

FEED COST

OPPORTUNITY: Reducing feed cost per cwt. milk produced by \$1.00 will reduce feed cost \$200.00 per cow per year.

MY GOAL: Reduce feed cost per cwt. from \$ ____ to \$ ____

IMPACT: (\$/cwt. reduction) x (\$200.00) x (# of cows) = _____ per herd per year

COST: \$ _____ **PROFIT:** (subtract cost from impact) \$ _____ per herd per year

Manure Treatment Systems

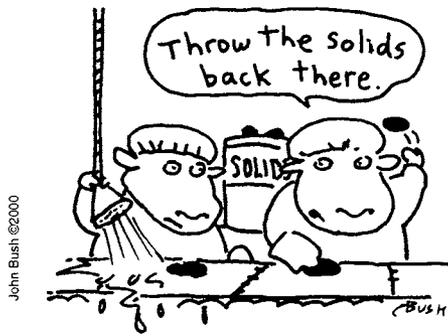
Are They For You?

KEVIN A. JANNI, DAVID R. SCHMIDT,
and JOSE R. BICUDO
Department of Biosystems and Agricultural Engineering,
University of Minnesota

Many dairy producers are interested in innovative manure treatment to improve nutrient recycling, reduce land-application costs, and provide useful products (e.g., compost, electricity, hot water).

Should there be an innovative system in your future? That depends. Each requires changes in manure handling and equipment. Each increases operating costs. These costs must be weighed against expected benefits. To make a change worthwhile, processes need to be cost effective, labor efficient, environmentally friendly, and reliable year-round.

Mechanical Solid-Liquid Separation



Mechanical separators divide manure into solid and liquid fractions. The solid fraction contains the fiber and some of the nitrogen and phosphorus. With less water, solids can be

transported at a lower cost per pound of nutrient for land application. Solids can also be composted and reused as bedding or sold as compost. The liquid can be recycled as flush water for manure removal in freestall barns, or land applied at rates based on crop needs. It's not clear whether separation reduces odor.

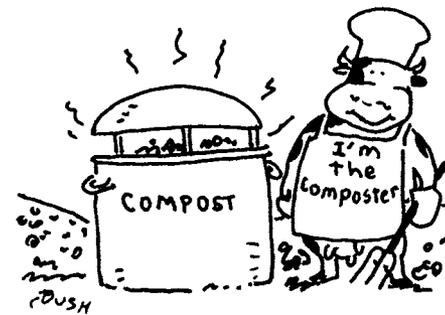
Mechanical separators include screens (inclined screens, rotating screens, vibrating screens), belt and screw presses, and centrifuges. Capital costs can range from as low as \$5,000 for screens to more than \$200,000 for a centrifuge. This type of equipment has long been employed in municipal and industrial wastewater operations.

Performance of mechanical separators varies widely. Total solids in the solid fraction range from 5 percent with stationary screens up to 35 percent with centrifuges. Separation efficiencies for total solids can vary from less than 10 percent to about

60 percent. Presses and centrifuges have higher separation efficiencies and produce drier solids than screen separators.

The proportion of nutrients remaining in the liquid fraction depends on the percent solids in the manure, use of additives, and storage time before separation. In general, more nutrients remain with the solids when there are more solids in the manure being separated. Additives (e.g., lime, ferric chloride, and flocculants) can improve separation. Nutrients and solids are generally more readily removed from fresh manure than from stored manure. Both solid and liquid fractions need proper handling or treatment to minimize odor and maximize nutrient recycling on cropland. Both contain adequate moisture, organic matter, and nutrients to pollute water and air if not handled, treated, and stored properly.

Composting



Composting turns dairy manure solids and organic bedding into a uniform, easily handled, organically stable, soil-like material that can be land applied and marketed as a

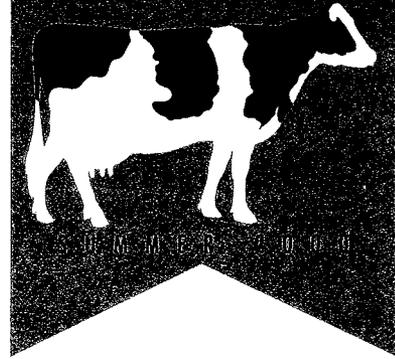
soil amendment. Composting produces heat, which drives off moisture and kills pathogens and weed seeds. It also reduces the volume of material as much as 50 percent. Potential benefits include improved manure handling, enhanced soil tilth and fertility, and reduced environmental risk.

Composting requires proper materials, equipment, space, and management. It also requires oxygen, moisture, and an appropriate nutrient balance. Material to be composted should have a moisture content between 40 and 65 percent and a carbon:nitrogen ratio of 20:1 to 40:1 (25:1 to 30:1 is preferable). For detailed instructions on composting, see NRAES 54, *On Farm Composting Handbook*, available through the University of Minnesota Department of Biosystems and Agricultural Engineering (612/625-9733).

Compost sites can generate offensive odors and gases if not properly managed. The odors can originate in the ingredients if they have been stored anaerobically for a week or more. It can also result from insufficient aeration, improper nutrient balance, and excessive moisture. Odors and gases appear to be more significant in the early stages of the process and also during turning. Management is key for reducing odors and gaseous emissions from composting operations.

MINNESOTA DAIRY LEADERS

In 1992, dairy farmers, and CEOs of 32 dairy related businesses and organizations made a formal commitment to revitalize Minnesota's dairy industry by forming a structure to unite their effort. That structure is the Dairy Leaders Roundtable. This newsletter highlights Roundtable accomplishments as well as on-going projects and plans.



Minnesota, Wisconsin dairy leaders meet jointly

There were Viking and Packer football fans at each round table.

"We're going to shed state boundaries and just talk dairy," said Ed Frederick when establishing ground rules for the first joint meeting of the Minnesota Dairy Leaders Roundtable (MDLR) and the Wisconsin Dairy 2020 Council. The groups met June 19 in St. Paul, Minn., to highlight individual programs and share ideas.

"We're testing whether there are some things we can do together," said Frederick, MDLR facilitator. "We can learn back and forth on items."

"The two states share similar dairying environments," said Don Berg, vice president at Land O'Lakes Inc. and a member of the MDLR Steering Committee.

He challenged the dairy producers and industry leaders in attendance to look ahead

five years. "Five years from now we should celebrate what we have accomplished as an industry or admit that we have failed."

"Now, we're not winning from an industry perspective," Berg said in reference to the Minnesota and Wisconsin dairy industries. "This should be the hub of U.S. milk production."

With the national dairy industry growing, consolidating and intensifying, Berg encouraged producers to look inward.

"Don't worry about the processors and consumers," he said. "I would suggest the number one issue is where are the cows going to be? They will drive capital investment all along the supply chain."

Berg said the cows will be where the people want them. The cows will be milked by "producers who believe they can compete," he said. "And

where there is sustainable market access."

"Idaho or California would tell us we have a crisis," Berg said "They have every intent of taking your market. It's a competitive spirit there."

Joe Conlin, a dairy consultant and retired University of Minnesota dairy specialist, said Minnesota and Wisconsin farmers have the tools to compete. "The farmer has to thrive first. We have the tools and leadership to do it...We need modernization of our farms.

"This could be the dairy processing capitol of the world," agreed Paul Scharfman, president of Specialty Cheese in Madison, Wis., and co-chairman of Wisconsin Dairy 2020. He insists the Minnesota and Wisconsin dairy industries are not in a crisis, but a transitional period.

"Perhaps you can help yourself by thinking not about the negative side. There's an awful lot of people enjoying the industry. Build on the positives. Go look at the guy next door who's making a buck or look at the processor next door who's expanding."

Roundtable helps produce guide on working with consultants

Roundtable Education

Coalition helps develop educational brochure.

So you want to hire a dairy consultant. Where do you start?

A brochure entitled, "Working with Dairy Consultants," may provide the basic information needed. Funded by the Minnesota Dairy Leaders Roundtable (MDLR) and Central Minnesota Dairy Profit Team, the brochure was written by leaders in the consulting field.

"We've taken the many common questions about consulting and given you straightforward answers in this brochure," said Al Gulbransen of First District Association and coordinator of the MDLR Education Coalition.

The brochure begins by outlining the attitude a dairy producer must have to work with a consultant. If a producer answers "yes" to the four questions, he then moves to the second step.

A five-question list, including goals and a review of the farm's record system, enables a producer to determine if he is ready to hire a consultant.

"Not every person with a business card that says 'consultant' is qualified to be a consultant," producers are warned in the brochure. The brochure's third section tells producers how to evaluate a consultant and identify the skills demonstrated by the best consultants.

Finally, the fourth step details the duties of a dairy consultant and the most common methods of payment.

For a copy of the brochure, contact the University of Minnesota Extension Service, Stearns County, 3400 1st St. North, Suite 400, St. Cloud, MN 56303-4000. Ph. 1(800) 450-6171. e-mail stearns@extension.umn.edu.

State Website links state producers

The MinnLink Internet Web site is providing links to common sites used by dairy producers and industry providers.

Found at www.MinnLink.org, the site categorizes state dairy information to ease accessibility.

For more information on the site, visit www.MinnLink.org. For permission to post information on the site or to link another site, e-mail support@MinnLink.org or call 1(800) 937-8387.

Dairy supporters recognized



On behalf of the Minnesota Dairy Leaders Roundtable, Delbert Mandelko, president of the Minnesota Milk Producers Association, presents outstanding service awards to Rep. Howard Swenson (R-Nicollet), left, and Sen. Dallas Sams (D-Staples). Swenson and Sams are members of the ag and rural development committee in the House and Senate, with Sams chairing the Senate committee.

New dairy reputation initiative unveiled

The Midwest Dairy Association shares plans to kickoff reputation management program in Minnesota.

An initiative designed to reinforce consumer confidence in dairy products and the people who produce them was unveiled at the June 19 meeting of the Dairy Leaders Roundtable.

Sherry Newell, industry relations manager for the Midwest Dairy Association (MDA), outlined the scope of the new initiative to producers and dairy industry professionals attending the meeting.

Though consumers currently hold dairy farmers and the dairy industry in high regard, Newell said there are threats that could erode that base of confidence. The list of threats includes feedlot debates, media questions about farm and herd practices and activist attacks by groups such as People for the Ethical Treatment of Animals (PETA).

The initiative Newell outlined will help build a "trust bank" to neutralize the public impact of negative incidents and the negative media exposure that often accompanies such occurrences, Newell said.

At the roundtable meeting, Newell proposed that the reputation management plan be launched as a new coalition of the roundtable.

A kickoff for the Minnesota

Reputation Management initiative is set for Monday, Oct. 16, at the Holiday Inn International, Bloomington, Minn. Dairy industry representatives will gather to define the tactics they will use to manage the industry's reputation.

The reputation management initiative is an outgrowth of a national effort developed by Dairy Management Inc. (DMI) and the National Milk Producers Federation (NMPF). Minnesota is the first to launch the program that will be used

to maintaining a strong rural economy.

The new reputation plan will be both proactive and reactive, Newell said. "As an industry, we can all work together in a coordinated fashion when negative situations arise. We will all have the opportunity to deliver the same key messages and designate spokespersons to deliver them," she said.

Newell said, "We will develop messages through the

The Minnesota Reputation Management initiative will begin Monday, Oct. 16, with an industry meeting at the Holiday Inn International, Bloomington, Minn.

as a model for other states and regions. States within the MDA will follow Minnesota, implementing the program in 2001.

Newell said the goal of the reputation management program is to gain consumer agreement that:

- Dairy farmers care for their animals humanely.
- Dairy farmers demonstrate concern for protecting the environment.
- Milk produced in the United States is the safest in the world.
- Dairy farming, production and processing are critical

media when times are good. We can use farm tours, editorial materials and other means to show that dairy farmers care about the environment, treat animals humanely and contribute significantly to the economic welfare of mainstreet Minnesota."

The proposed reputation management plan calls for the development of a statewide team under the umbrella of the Dairy Leaders Roundtable. This team will develop and monitor specific program tactics. The team will identify media spokespersons, issue-specific sub-teams, and additional issues requiring action.

Calendar of Events

Educational opportunities open to all producers and other professionals in the dairy industry

AUGUST 2000

- July 30 Thru Aug 1 National Farm Transition Conference. Minnesota West Technical College, Pipestone, MN. Contact: Passing On The Farm Center 320-564-4511.
- 15 & 16 Dairy OnTime Bootcamp-An aggressive training "camp" for Efficient Task Management. Burlington, VT. Dairy Strategies 888-249-3244. Web site: www.dairystrategies.com
- 22 & 29 Two-day SE Minnesota Dairy Heifer Seminar Series. Holiday Inn South, Rochester, MN. Contact: Neil Broadwater 507-457-6440 or Chuck Schwartau 651-385-3100 or 800-385-3101.
- 24 thru Sept 4 Minnesota State Fair. State Fairgrounds, St. Paul, MN. Contact: Minnesota State Fair Information 651-642-2200.
- 24 thru Sept 4 Moo Booth at the Minnesota State Fair. Minnesota State Fairgrounds, St. Paul, MN. Contact: Doris Mold 651-645-3275.

SEPTEMBER 2000

- Thru Sept 4 Moo Booth at the Minnesota State Fair. Minnesota State Fairgrounds, St. Paul, MN. Contact: Doris Mold 651-645-3275.
- 11 Minnesota Dairy Leaders Roundtable Meeting. Sheraton Inn Midway, St. Paul, MN. Contact: Ed Frederick 507-835-3422.
- 13 & 14 Milker Training School. Ridgewater College-Willmar Campus, Willmar, MN. Contact: Brant Groen 320-231-7647 or Pat Kearney 320-231-7893.

OCTOBER 2000

- 26, Nov 2, 9, Labor Management Course (6-session series). Paynesville, MN. Contact: Lee Gross 320-255-6169.
- 16, 29 & Dec 7

NOVEMBER 2000

- 20 Minnesota Holstein Association Fall Harvest. Rochester, MN. Contact: Pauline Bratt 320-259-0637.

DECEMBER 2000

- 13 Labor Management Course. St. Cloud, MN. Contact: Lee Gross 320-255-6169.
- 14 Central Minnesota Dairy Expo. Holiday Inn, St. Cloud, MN. Contact: Jim Salfer 320-255-6169.

JANUARY 2001

- 9 & 10 Minnesota Forage Conference. Holiday Inn, Detroit Lakes, MN. Contact: Betty Schiefelbein 651-436-3930.
- 17 & 18 Release of Dairy NRC. Location to be announced. Contact: Jim Linn 612-624-6789.
- 18 & 25 Labor Management Course (2-day course). Ridgewater College, Willmar, MN. Contact: Lee Gross 320-255-6169.

FEBRUARY 2001

- 1, 8, 15, 22 & Mar 1 & 8 Labor Management Course (6-session series). Glencoe, MN. Contact: Lee Gross 320-255-6169.
- 8 4-State Dairy Management Seminar. Calmar, IA. Contact: Jim Linn 612-624-6789.
- 9 4-State Dairy Management Seminar. St. Cloud, MN. Contact: Jim Linn 612-624-6789.

Additions or changes to the Minnesota Dairy Calendar may be directed to:

Bonnie Rae
U of MN, Department of Animal Science
205 Haecker Hall, 1364 Eckles Avenue, St. Paul, MN 55108-6118

Telephone: 612-624-4995 / Fax: 612-625-1283
Email: raexx001@tc.umn.edu

<http://www.ansci.umn.edu/dairy/calendar/dairycalendar.htm>

MINNESOTA DAIRY LEADERS ROUNDTABLE

MISSION: "To develop and implement a shared vision of the Minnesota dairy sector through strengthening its competitiveness, profitability and social vitality."

2000 STEERING COMMITTEE:

Bill Dropik, *Minnesota Milk Producers Association*

Paul Kent, *Land O'Lakes, Inc.*

Mel Kunstleben, *Associated Milk Producers Inc.*

Don Berg, *Land O'Lakes, Inc.*

Dave Daeges, *Minnesota Bankers Association*

Mark Davis, *LeSueur Cheese Co/Davisco International, Inc.*

Daniel E. Little, MS, DVM, *Minnesota Veterinary Medical Association*

Gene Hugoson, *Commissioner, Minnesota Department of Agriculture*

Doris Mold, *Minnesota Agri-Women*

Gene Hugoson, *Minnesota Department of Agriculture*

F. Abel Ponce de León, *University of Minnesota*

Clint Fall, *First District Association*

Ed Frederick, *MDLR facilitator, Southern Experiment Station Annex, 12298 350th Ave., Waseca, MN 56093-5160 Phone 507-835-3422*

Manure Treatment Systems

Continued from page 6

Anaerobic Digestion for Generating Biogas

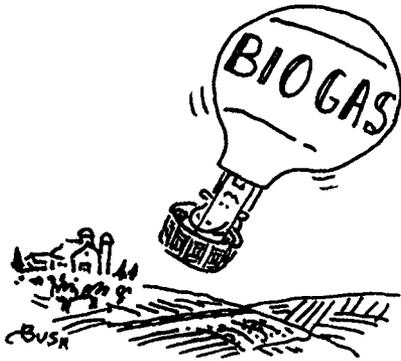
An anaerobic digester can transform dairy manure into a variety of end products, including methane (CH₄) and carbon dioxide (CO₂). This “biogas” can be burned for heat or used to fuel an electric generator. The heat and electricity can be used on the dairy or sold to others. The digester effluent, which contains all of the nitrogen, phosphorus, potassium, and micronutrients in the original manure, can be further processed or land applied. A complete anaerobic digestion system can become quite complex.

One of the most common anaerobic reactors used for the treatment of manure is the plug-flow reactor. In this system, manure is added to one end of a tank and effluent is removed from the other end into a storage unit. Other types of anaerobic digesters include complete-mix, contact, and upflow anaerobic sludge blanket digesters.

Digesters treat manure best and make the most biogas when operated at temperatures above 120° F. However, this is not usually cost-effective because the energy required to maintain this high temperature is greater than the energy gained in the process. Anaerobic digesters are usually operated between 95° F and 100° F. There have also been some successful applications in the 60° F to 75° F range, with lower treatment efficiencies offset by higher retention times.

Anaerobic digestion systems are fairly capital intensive. Components include manure handling, digester tank (including heating and mixing equipment if needed), gas handling, and electric generation equipment. Digesters require good management and regular maintenance for good long-term performance.

An anaerobic digester at Haubenschild Farms Inc. near Princeton, Minnesota, is generating more than 50,000 cubic feet of biogas and 2,000 kilowatts of electricity per day plus hot water from the manure from 436 cows. The unit, designed to handle the manure from 1,000 cows, is expected to be operating near full capacity after an expansion. For more information about the unit, go to the Minnesota Project web site at <http://www.misa.umn.edu/>. Information for determining whether an anaerobic digestion system is a feasible choice for your dairy farm can be found at <http://www.auri.org/>.



John Bush ©2000

Bedding and Bacteria

High SCC? Maybe your bedding's to blame.

How do you choose bedding for your cows? One important consideration is how well the bedding supports bacterial growth, which can lead to increased SCC and udder infections.

According to University of Minnesota scientists Russ Bey, Jeff Reneau, and Ralph Farnsworth, all bedding made from plant materials harbors bacteria. However, different types of materials support bacteria differently. Crushed or ground sunflower hulls, sawdust, oat hulls, and straw support the most bacteria. Paper dots, shredded paper, aspen, and a mixture of oak and pine support an intermediate level of bacteria. Sand and large pine shavings support the least amount of bacteria. In general, bedding made of large particles supports fewer bacteria than bedding made of fine materials.

Some recommendations to minimize bacteria problems in bedding and reduce the risk of mastitis:

- Use materials with larger particle sizes.
- Keep bedding as clean and dry as possible.
- Change bedding daily.
- Remove soiled bedding.
- Do not move bedding from front of stall to back of stall.
- Always use fresh bedding under the back one-third of the cow.



John Bush ©2000

Beyond the Bottom Line

Promoting Yourself as an Employer

The image of a business is critical to its success. Many dairy producers have always been concerned about how other farmers perceive the quality of their animals and how their farmstead and crops look to those who drive by. This is a concern for *physical assets*. A part of image that is becoming even more important to business success is concern for *human assets*—your image as an employer. Dairy producers today have to be concerned not just with what the business looks like, but also how it feels to work there. Your image as an employer is just as important as, if not more important than, concerns about the cows, crops, and buildings.

You can establish a good employer image during recruiting and hiring. You can build it by leading and managing a business for which people want to work, and by improving your human resource practices and skills.

Why Employer Image Matters

Building an image as a good employer is important for several reasons.

First, because the labor market is tight and the dairy business is increasingly complex and competitive, there is no pool of unemployed workers, so chances are you will be hiring someone who currently has a job. Candidates will only be interested in moving to a job if they believe it will be a better situation. The compensation package, of course, is a major part of that. Increasingly, however, employees are seeking jobs with greater job satisfaction. Consider the descriptions of employees' experiences in the box to the right. Employees are looking for jobs like the one held by Maritza! Their perception of "better" is based on the image of the business and on the image of the industry of which that business is a part.

Second, when you interview candidates, the perceptions they have when the interview begins will be based primarily on image. We all know that first impressions are important! Ultimately, however, your image will be based on your attitudes toward employees and your human resource practices and skills. That image is a "total picture," not just the first impression.

Which Employer Image Would You Rather Have?

HERE ARE descriptions of the experiences of two real-life employees (names changed, of course) who attended workshops on human resources. While reading their stories, try to put yourself in their shoes.

MARITZA

Maritza began working with the farm business as a teenager when her parents came to the farm seeking employment. She had few skills and little education. The owner recognized Maritza's interest in her work and potential to develop. He coached her and gave her increasing responsibility and authority. Maritza now manages an important component of that business, including supervising employees. She also has earned her high school equivalency diploma. Maritza is now an optimistic, confident, self-assured young lady and an excellent employee.

GEORGE

Much to his surprise, George's new employer sent him to the workshop on human resources. George had previously worked for a farm business for 23 years until that business was dissolved. George stated that he was not a good employee for those 23 years. He never knew the importance of what he was doing; he was never provided encouragement or positive feedback; he was never asked for his input or given opportunities to develop. His response was to just do his job, which he now realizes meant doing the minimum. George is now an older man with renewed energy but with great regret for his job performance in his previous job.

ASK YOURSELF the following questions about Maritza and George:

If you were an employee, would you rather work on the farm business owned by Maritza's employer or by George's former employer?

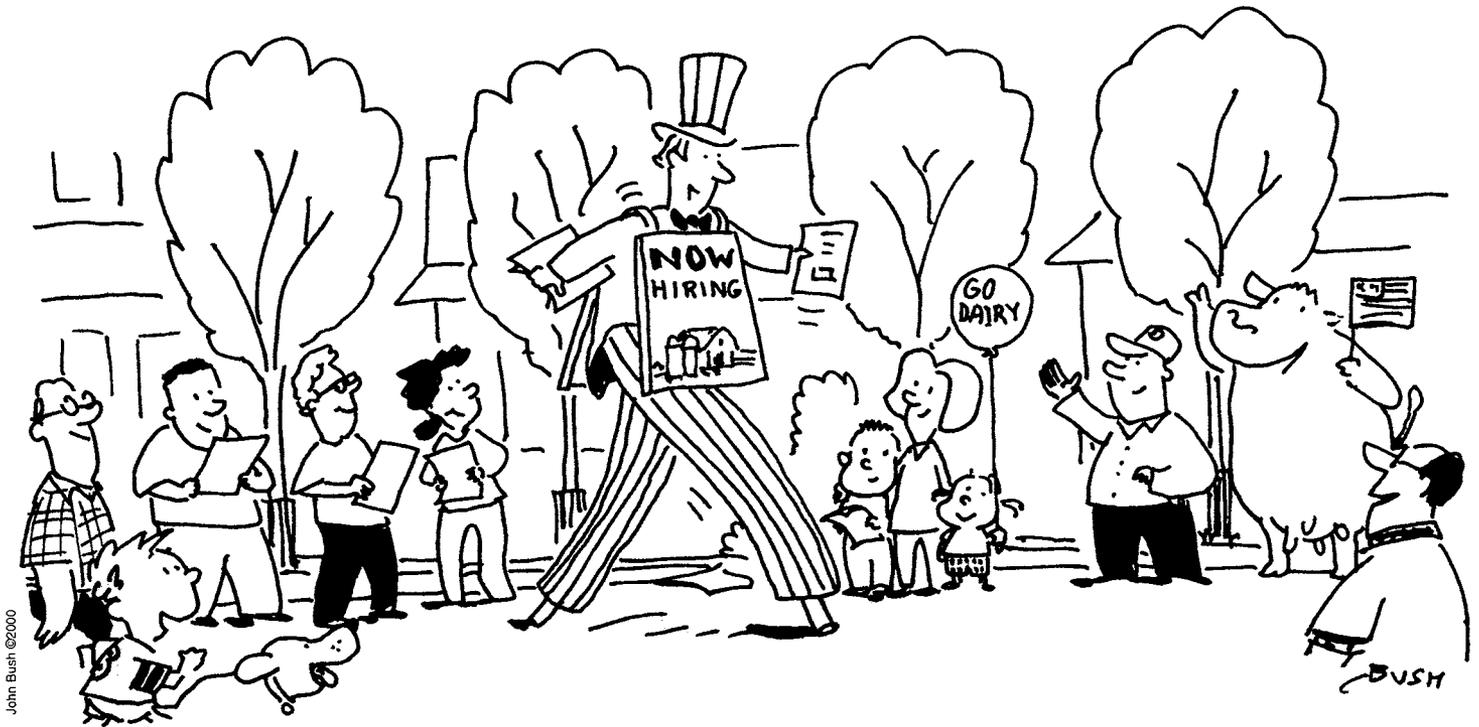
What do you think Maritza and George tell their family and friends about their jobs and their employers?

George's former farm no longer exists, while Maritza's farm business is thriving. Do you think the different outcomes are related to the attitudes and people skills of the managers?

ROBERT A. MILLIGAN
Agricultural,
Resource and
Managerial
Economics,
Cornell
University

SHARON M. DANES
Department of
Family Social
Science,
University of
Minnesota





Improving Your Employer Image

There are ways to enhance your image as an employer. Some suggestions are provided here that have been used by farmers in hiring, recruiting, and managing their businesses.

Employer image when hiring. The tightness of the job market means that the hiring process will be more difficult and will take longer. You are not likely to successfully hire outstanding employees if you rely on impromptu tactics planned when the previous employee leaves.

Start by developing strategies for hiring quality employees that are consistent with your vision, mission, core values, and human resource attitudes and practices. These could include:

- Focus on developing current employees to fill positions from within and hire only entry-level employees.
- Develop a very positive relationship with a particular labor pool, such as young people or the retired. One successful farm works with school counselors and recruits members of the high school honor society.
- Recruit employees from the entire work force, including ethnic groups. This requires being open to cultural differences.
- Employ part-time employees from pools of workers who only want to work part time, such as parents with children in school.

- Employ part-time skilled workers looking for income from second jobs. These can be especially attractive for the cropping operation, in which you need employees at critical times and often at atypical times during the day.

Consider a strategy called Planned Alternative to Hiring (PAH) to fill key positions such as herd manager, crop manager, mechanic, financial manager, and personnel manager. With this strategy you develop plans and procedures to continue the critical components of the position after the individual leaves until a replacement can be hired. Examples include cross-training, use of temporary service firms, and cooperation with similar farm businesses. A PAH strategy provides the necessary time to fill a critical position with a great employee or to develop a current employee to advance to the position.

In developing these hiring strategies, always remember that employees will be unhappy if they do not believe they are fairly compensated, but factors of involvement, responsibility, importance, and achievement have a greater positive impact on employee motivation and retention.

Employer image when recruiting. Recruiting is really marketing your business and the position available in that business. Think about how products are marketed on television. The focus is on the positive attributes of the product. Similarly, you are

Continued on page 10

.....

TIP:

When recruiting, view everyone who reads or sees your recruitment material as part of your audience. Those who do not apply will more likely remember your business positively. Further, many candidates apply for a position at the urging of a friend, family member, or fellow employee.

.....



John Bush ©2000

Continued from page 9

marketing the positive attributes of your position and your business.

What parts of your mission, vision, and core values would be attractive to potential employees? Job attributes with marketing potential include the opportunity to work in a family-owned business, the opportunity to work outdoors, job variety, opportunities for training, ease of advancement, modern facilities, and team atmosphere.

Compare the two want ads below. Which position would you apply for?

Employer image when managing the business. Marketing the attributes of a product is important to the success of the product. However, ultimately the product's image will be determined by its quality. Similarly, the image of your business as an employer will ultimately depend upon your attitudes toward employees and your human resource practices and skills. You must lead and manage a

TEAM MEMBER WANTED. Maple View Dairy Farm, a thriving third-generation family business, is seeking a high school graduate to join a progressive dairy farm business. We strive to market only high-quality, nutritious food produced with environmentally friendly practices. We offer competitive compensation. Outstanding job satisfaction is maintained by continuous training, increased job responsibility, flexible work schedules, clear performance expectations and friendly supervisors. Dairy farm experience is not necessary but a commitment to succeed is. Call Jim today at 555-5555 for more information or to apply.

Employee wanted for large dairy farm. Must have experience and be willing to work hard. Call 555-5555.

business for which people want to work.

Below are some suggestions that should increase the job satisfaction of your employees while also increasing the success of your business:

- **Articulate and communicate your business mission, vision, and core values.** A compelling vision and shared core values are critical to motivated, committed employees. Note the statement from the ad mentioned earlier, "We strive to market only high-quality, nutritious food produced with environmentally friendly practices." Also note the ad's reference to outstanding job satisfaction.
- **Develop a positive business culture.** Set an example by being friendly, optimistic, and fair with everyone in your business. Whether in sports or in business, each of us wants to be a part of a winning team.
- **Provide feedback.** Research shows that almost all people crave feedback. They especially desire positive feedback.
- **Train and develop your employees.** All employees want to develop and succeed, if you give them an opportunity. Remember the attitude change in George when given the opportunity to attend the human resources workshop.
- **Establish a relationship based on trust and respect with each person in your business.** Trust is the key to all interpersonal relationships, including employee-employer relationships. Great trust is only established with employees when the employer is unquestionably and consistently trustworthy.

In summary, in this tight labor market, and as the dairy business becomes more complex and competitive, business image can't just be about physical assets anymore. It must also be about developing and maintaining your image as an employer. You create that image through your attitudes toward employees, your human resource practices and skills during hiring and recruiting, and how you lead and manage your business. 🐄

FEELING OVERWHELMED?

Don't be afraid to ask for help when you need it.

FOR RESOURCES, or information on mediation, call the Extension Rural Response Line at 800/555-6466.

If you feel you need professional help to deal with individual or family emotional issues, a counselor can often be a great help.

There are many counselors and counseling agencies around the state. For example, Lutheran Social Services has a toll-free, statewide information and referral number to connect you with a counselor in your area (888/881-8261). Many counselors have sliding fee scales to ensure that money doesn't stand in the way for those who could benefit from counseling.

Change and stress can overwhelm us. Don't go it alone when there are people trained and willing to help.



John Bush ©2000



UNIVERSITY OF MINNESOTA
Extension
SERVICE

Department of
Animal Science

205 Haecker Hall
1364 Eckles Avenue
St. Paul MN 55108-6118

Non-Profit Org.
U.S. Postage
PAID
Minneapolis MN
Permit No. 155

CHANGE SERVICE REQUESTED

*****ECRL0T**C-028
MARLYS MCGUIRE
UMN - MAGRATH LIBRARY
90 MAGRATH LIBRARY
1784 BUFORD AVE
SAINT PAUL MN 55108-1012

Directory

Extension Specialists:

- Hugh Chester-Jones, Dairy Replacements.....507/835-3620
- Ralph Farnsworth, Veterinary Extension Contact612/625-3130
- Kevin Janni, Engineer/Dairy Housing612/625-3108
- Dennis Johnson, Sustainable Dairy.....320/589-1711
- James Linn, Dairy Nutrition612/624-6789
- George Marx, Dairy Management218/281-8606
- Jeffrey Reneau, Dairy Milk Quality612/624-9791
- Gerald Steuernagel, Dairy Records.....612/624-5391

Specialized Dairy Extension Educators

- Neil Broadwater, Winona County507/457-6440
- Vince Crary, E. Polk County218/563-2465
- Bill Crawford, Martin County507/235-3341
- Tim Dolan, Sibley County.....507/237-4103
- Lee Gross, Stearns County320/255-6169
- Pat Kearney, Kandiyohi County.....320/231-7890
- Harouna Maiga, Becker County.....218/847-3141
- Vern Oraskovich, Carver County.....612/442-4496
- Jim Salfer, Stearns County320/255-6169
- Troy Salzer, Carlton County.....218/384-3511
- Wayne Schoper, Brown County.....507/794-7993

DAIRY *Initiatives*

Dairy Initiatives is published quarterly by the University of Minnesota Extension Service, Dairy Initiatives Program, as an educational service to Minnesota dairy producers. Address correspondence to Jerry Steuernagel, 205 Haecker Hall, 1364 Eckles Avenue, University of Minnesota, St. Paul MN 55108; 612/624-5391; xjer@tc.umn.edu.

Production Staff:
 Editor: Gerald Steuernagel Designer: Tara Christopherson
 Writer: Mary Hoff Illustrator: John Bush

If you are getting more than one copy of this publication, have a change of address, or would like to be added to the mailing list of this newsletter, please call or write to the above address.

The University of Minnesota, including the University of Minnesota Extension Service, is committed to the policy that all persons shall have equal access to its programs, facilities, and employment, without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

In accordance with the Americans With Disabilities Act, this material is available in alternative formats upon request. Please contact Jerry Steuernagel at 612/624-5391.

The information given in this publication is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the University of Minnesota Extension Service is implied.



This publication was printed on recycled paper using agribased inks.
Financial support provided by Dairy Partnership, Inc.