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**DAIRY**

# Initiatives



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DOCUMENTS

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## Antibiotic Residues and You

### *What You Don't Know Can Hurt You*

Antibiotics are a valuable tool for managing your herd's health. But they also can cause big problems if you fail to take the precautions needed to keep them out of marketable milk.

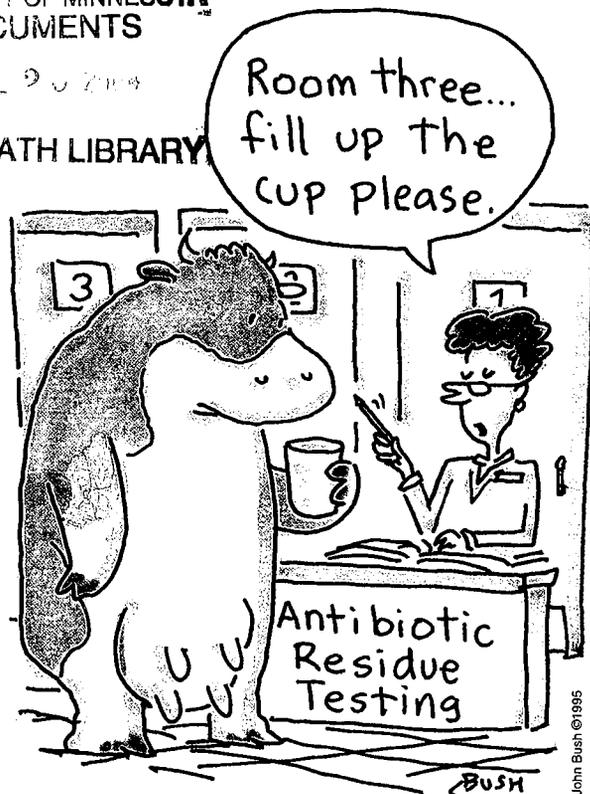
The drugs, which travel through a treated cow into the milk, were reported in dairy products in alarming amounts in the late 1980s. As a result, strict limits were set on the amount of antibiotic residues allowed in milk. Today farmers are responsible for keeping antibiotics out of the milk supply by discarding milk produced by treated cows until the antibiotics have cleared the animals' systems.

Every truckload of milk that arrives at the processing plant is tested for antibiotics before it is unloaded. If it contains more than the allowable antibiotic residue (the actual numbers range from 5 to 50 parts per billion—ppb—depending on the specific drug), the entire load must be discarded.

### **The Farmer Pays the Price**

What does that have to do with the individual producer? A lot. When a load has to be dumped due to contamination, the first thing the plant does is test bulk tank samples to figure out where the residue came from. If it turns out to be you . . . well, you'll wish it hadn't. You automatically pay for the entire truckload of contaminated milk and for its disposal. You must forfeit the value of two days' worth of milk and go through a ten-point educational program with your veterinarian. You also lose your ability to ship milk until your milk supply has been sampled and tested safe.

And that's just for the first offense. If it's your second time in a 12-month period, you're fined the



price of four days' milk supply. Three strikes and you not only lose the milk, you're also up for a hearing that could cause you to lose your permit for up to 30 days.

### **A Matter of Carelessness**

With penalties like that, why would anyone ship contaminated milk? According to Mike Krim, acting director of the Minnesota Department of Agriculture's Dairy Division, the problem is not so much that offending producers don't know or care about the law as it is unfortunate lapses in proper record keeping and communication.

"Most problems are accidents," he says. "It seems like many of these occur on weekends, when

*Continued on page 2*

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Current information available from University of Minnesota Extension: <http://www.extension.umn.edu>

## Antibiotic Residues and You

Continued from page 1

maybe younger members or another person is helping out with milking and the cow accidentally gets into the milk supply.” For example, Krim says, a producer might treat a cow with antibiotics when he dries her up, but forget the change in status when she shows up at the stanchion the next day. An understandable mistake—but one with a price tag far higher than most people are willing to pay for their carelessness.

Since the beginning of 1992, more than 800 loads of Minnesota milk with a value of nearly \$2.5 million have been dumped because they were contaminated with residues. And the problem seems to be growing. In 1993, just under 5 million pounds of milk had to be disposed of. For 1994, that figure rose to 6.5 million pounds. And all indications are that 1995 will be another record-breaking year.

“It’s disheartening when the penalties are as severe as they are and the problem seems to be getting worse,” Krim says.

### What to Do?

If you are like most Minnesota dairy producers, you want to provide a quality, wholesome product to the consumer. You will do what you can to ensure that contaminants don’t find their way into the milk. In the case of antibiotics, that’s largely a matter of using the drugs moderately and according to label instructions, keeping close tabs on treated animals, and also making sure that all barn help is aware of the importance of following these rules.

The American Veterinary Medical Association and the National Milk Producers Federation have put together a 10-point plan for minimizing residue problems. Their advice:

**1** *Keep Cows Healthy.* The best way to keep antibiotics out of milk is to keep them out of the cow in the first place. You can reduce your need for disease-fighting drugs by reducing the conditions that promote disease.

Use good milking procedures to minimize mastitis. Take care of hooves to prevent foot infections. Keep calving facilities and calf housing clean and well ventilated to minimize infections. Maintain proper vaccination schedules.

**2** *Establish a Good Relationship with Your Veterinarian.* An ongoing relationship with your veterinarian will help ensure that you are using drugs properly and only when needed. It’s also important that you clearly understand what he or she has done to a treated animal and to understand the implications for your milking routine. Clear, regular communication is the key here.



John Bush ©1995

**3** *Use the Right Drugs in the Right Way.* Whether over the counter or prescription, the antibiotics you use should be approved by the Food and Drug Administration. And follow the label! It is illegal for you to use a drug in a way not specified on the label or package unless advised to do so by your veterinarian. If the drug label says you should use 4 cc’s per hundredweight and withhold from milking for 48 hours, DO IT! Too many people increase the dose on the “more is better” theory without realizing that it takes a lot longer to clear the cow’s system. That “48 hours” will no longer do the trick, and you’ll end up with contaminated milk.

**4** *Check the Labels.* You are responsible for keeping antibiotic residues out of your milk. To do so, you must know how to use drugs properly. All labels, including those on feed additives, should contain the information you need to do so. If you have a drug that does not clearly identify how it is to be used and how long you need to withhold milk after use, ask your veterinarian for help.

**5** *Store Drugs Properly.* Keep drugs away from milk and milking equipment. Keep medicated feeds away from nonmedicated ones. Make sure that drugs for nonlactating animals are clearly separate from those that can be used on your milking herd.

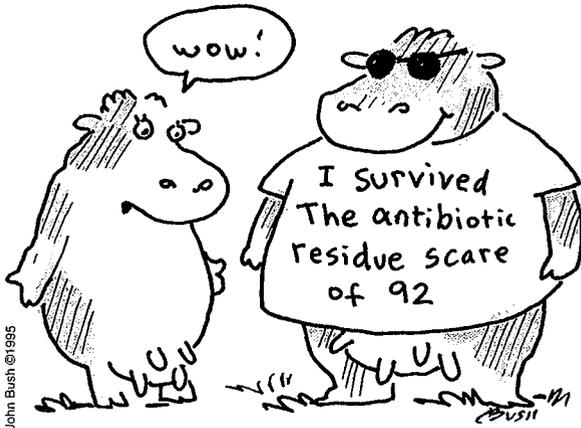


John Bush ©1995

## Sneaky, Sneaky

**OCCASIONALLY FARMERS THINK** they're doing what they should to keep antibiotics out of milk, only to discover that procedures they thought were good enough really were not. To avoid "sneaky" contamination, be sure to:

- Milk treated cows last.
- Discard milk from all four quarters, even if you only treat one quarter.
- Carefully wash all milking equipment after milking a treated cow.
- Monitor buckets of milk from treated cows so they don't overflow, sending bad milk into the pipeline.



**6 Give Drugs Correctly and Identify Treated Animals.** Carefully follow the instructions that come with the drug on how to administer it and how much to administer. Use leg bands, hock markers, neck straps, cords, chains, paint sticks, or ear tags to identify treated animals. If possible, use a second tag or marker as backup in case the first one is not seen or becomes lost. Make sure that every person involved in milking understands what the tag or marker means.

**7 Keep Good Records.** Record treatment date, drug, dose, withdrawal time, and related information for each animal that you treat. This will help others handling the animal be aware of its status. It also will provide a valuable history for the veterinarian. The American Association of Bovine Practitioners has developed handy forms that you can use to keep treatment records. Ask your veterinarian if you'd like copies to use with your herd.

**8 Screen for Drug Residues.** Some experts recommend that you use on-farm tests to screen for the presence of residues in animals. Others question the usefulness of such tests. Discuss this with your veterinarian to determine what is best for you.

**9 Educate Your Help.** Whether it's the kids or the weekend help, be sure that anyone who helps

in the barn knows how important it is to keep milk from treated cows out of the bulk tank. Only persons you can trust to carefully follow instructions should be responsible for milking, medicating, or other tasks that could influence the presence of residues in your milk.

**10 Evaluate Your Procedures Yearly.** Obtain a copy of the *Milk & Dairy Beef Residue Prevention Protocol*, published by the American Veterinary Medical Association and the National Milk Producers Federation, from your veterinarian or dairy company, or contact the publisher directly at 515-838-2793. This publication contains specific advice and handy worksheets that will help you avoid residue problems. Go through the book annually to make sure your procedures remain on track. 🐄

## Why Are Antibiotics a Concern?

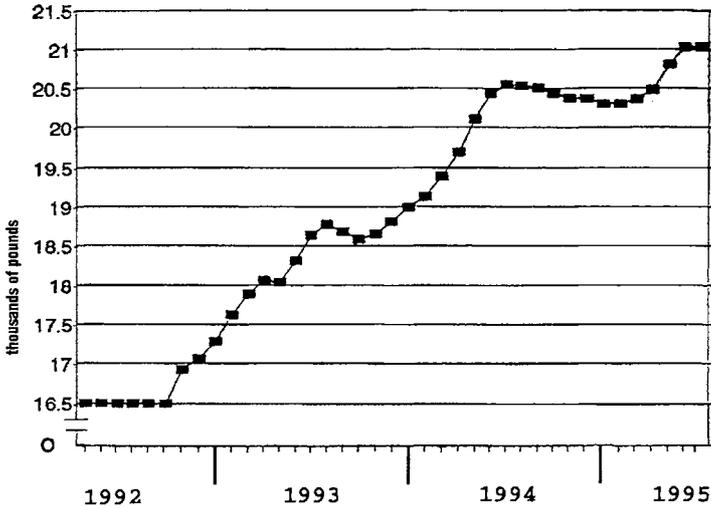
**WHEN ANTIBIOTICS FIRST** became available for veterinary use, they were viewed as a miracle drug. Producers used them to solve all kinds of problems with little awareness of any negative side effects.

Then, in the late 1980s, people began to realize that antibiotics were showing up in measurable amounts in the milk at the store. For people with life-threatening allergies to antibiotics, this became a serious health concern. Even those without such allergies were concerned that too much exposure to antibiotics would make the drugs ineffective when they truly were needed. As a result, laws were passed to keep the drugs out of milk.

HOW MUCH antibiotic does it take to contaminate milk? A whole lot less than most people imagine. Allowable limits range from 5 to 50 parts per billion, depending on the test and the drug. That's the equivalent of 5 to 50 kernels of corn in a corn-filled silo 16 feet in diameter and 45 feet high!



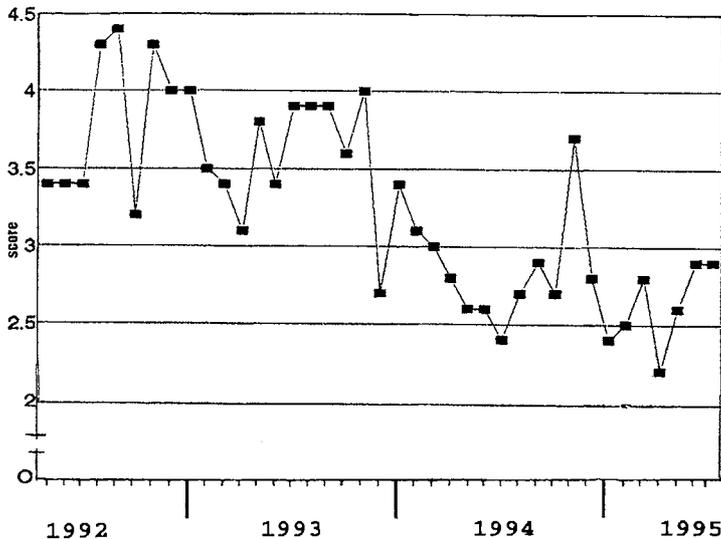
**Wandersee Farms: rolling herd average milk production**



Rolling herd average is an average of the amount of milk produced by the cows in the entire herd. An increase in rolling herd average means an increase in farm income if all costs are kept in line. A goal for this measure is best decided based on your individual management capabilities.

- expanding herd size and moving to a new facility
- adding a monthly herd health check
- moving into rotational grazing
- improving nutrition through use of a TMR wagon
- improving feed management by adding bunker silos
- identifying and correcting stray voltage problems
- deciding to contract out heifers
- improving ventilation of heifer barn by removing the ridge opening

**Francis Beuch: average linear SCC**



Somatic cell count (SCC) is used to measure the effects of subclinical mastitis on the herd, identify infected animals, and quantify the impact of improvements in management. It also helps to identify temporary or long-term problems that otherwise may go undetected. As the average linear score increases beyond 2, milk production and profit decrease. A linear score of less than 2 is desirable.

- improving communication among family members
- building a curtain-sided barn with indoor feeding alley
- changing haying routines to improve hay quality

Even though the members of the first “class” of demonstration farms has officially completed their participation, the Dairy Initiatives Program’s efforts to help link producers and dairy sector experts continue. According to Goodrich, the focus will now shift to helping producers throughout Minnesota apply the diagnostics team concept to their own operations.

If you would like more information about how you might participate in this next phase, please contact your specialized dairy extension educator listed on the back of this publication.

\*\*\*\*\*  
**Congratulations, Graduates!**

**THE DAIRY INITIATIVES Program congratulates the following Minnesota dairy producers who improved their farms and enriched the state’s dairy sector through their participation in the demonstration farm project:**

- |  |   |
|--|---|
| Jerome and Mary Bechtold, St. Cloud            | Jerry and Neoma Miller, Eden Valley           |
| Mike and Barb Beranek, New Ulm                 | Bruce and Russell Nelson, Fergus Falls        |
| Francis M. Beuch, Jordan                       | Robb and Heidi Oyster, Hewitt                 |
| Gene, Marilyn, Robert, and Kim Bitzer, Warroad | Herbert and Mike Peine, Hastings              |
| Wesley and Sharon Bring, Strandquist           | Paul and Mary Peterson, New London            |
| Jerome and Rosalyn Bye, Plainview              | John and Peter Raditz, Maple Grove            |
| Courtney and Charles Carlson, Hawley           | Paul and Darlene Rolf, McIntosh               |
| Jeanne, Jerry and Jeff Dahring, Detroit Lakes  | Gordon and Sarah Schmidt, Gaylord             |
| Reynold and Vivian Dittbenner, Sleepy Eye      | Tony and Lisa Schmitz, Sleepy Eye             |
| Mark and Sue Dombeck, Perham                   | Charles and Ruth Schwartz, Le Sueur           |
| Roger and Agnes Elliot, Evansville             | Peter and Dave Seitzer, St. Peter             |
| Peter and Amy Gieseke, St. James               | John, Violet, Steve, and Sandra Simek, Kelsey |
| Tom and Bonnie Guldan, Sleepy Eye              | Tammy and Mike Stadick, New Ulm               |
| Dennis Hagland, Red Lake                       | Orin and Peggy Swart, Greenbush               |
| Randy and Lori Hanson, Nerstrand               | Nathan and Barb Sweep, Fosston                |
| Gary and Kay Henninger, Carlton                | Bruce and Owen Swenson, Nicollet              |
| James Herrmann, Norwood                        | Lowell Tangen, Wanamingo                      |
| Roger and Cindy Heuer, Howard Lake             | Stan and Fran Tvedt, Brooks                   |
| Michael Holte, Wendell                         | Ed and Sherri Twohey, Stewartville            |
| Patrick Holzem, Elk River                      | Wayne and Katherine Voth, Winona              |
| Harold and Michael Jetson, Spring Grove        | Mike and Nancy Wandersee, Watertown           |
| Mark and Leroy Johnson, Peterson               | Glenn Wenninger, Lafayette                    |
| Leroy Johnson, Peterson                        | Dale and JoAnne Wills, Nicollet               |
| Ervin and Randy Kerfeld, Melrose               |   |





# The Winning Edge: Improve Heat Detection

**EDITOR'S NOTE:** *Ever wonder what makes the difference between a farm that's surviving and a farm that's thriving? It's the continual search for excellence, an eye always open for a better way to do things and for better things to do. That's what gives some producers the winning edge.*

*Beginning with this issue of Dairy Initiatives Newsletter, we'll be helping to promote that winning edge by offering specific suggestions for boosting the quality of your operation. Try out the ones that make sense to you. And as you do, get in the habit of thinking throughout the day about what you're doing, why you're doing it, whether there is some way you could do it better or exchange it for a smarter activity. Because it could just be that those little things, added all together, will be the make-it-or-break-it difference for your operation.*

**D**uring the past 15 years average days open for Minnesota DHI cows has jumped from 117 to 144, according to extension veterinarian Jerry Olson. That change is due to changes in four factors: days in milk at first service, conception rate, heat detection index, and reproductive culling (see table). It's not all bad; some of it is due to the fact that with today's yields cows remain profitable longer, so dairy operators are extending lactations, breeding cows later in lactation, and reducing the rate of reproduc-

tive culling. But to maximize profitability, you should work to reduce the part of the increase in days open that's due to poor heat detection.

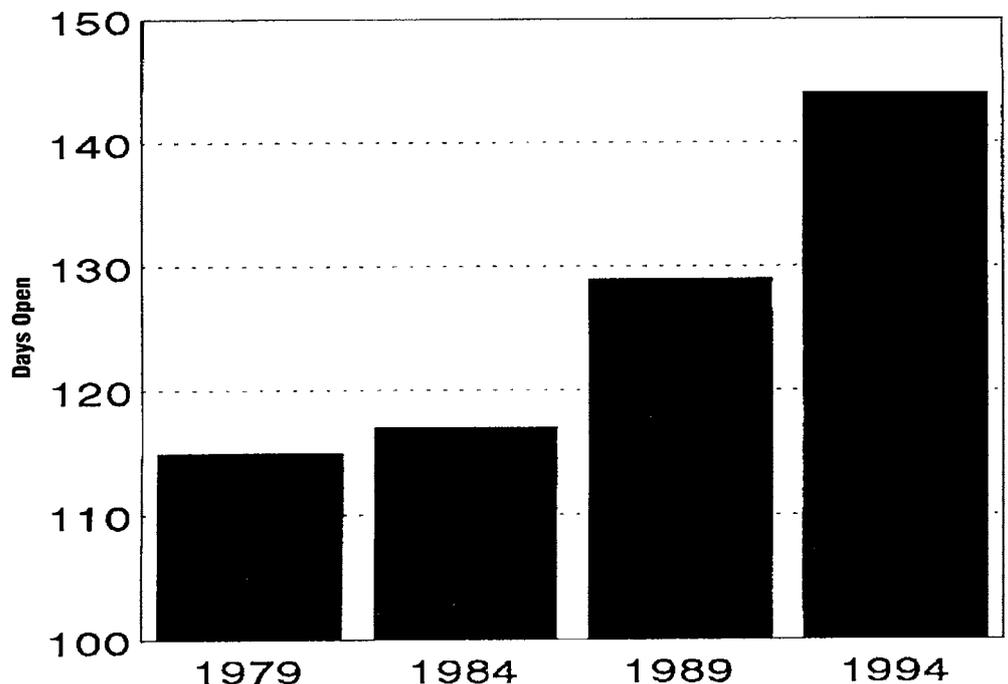
How? Detection aids such as tail-head chalking can help some, but in the long run there's no substitute for good observation. Turn cows out daily and **WATCH THEM**—don't just glance out for signs of heat while you're busy at other tasks. The pay per hour of heat detection is far higher than most other tasks on a dairy operation.

If you want to improve heat detection even more, you also might consider talking to your veterinarian about using prostaglandins to synchronize heats in your herd. Synchronizing heats has two big advantages, according to Olson. First, the more cows in heat at a single time, the more likely it is that they'll show mounting activity. Second, you can concentrate your detection activities on two or three days per week. 🐄

Changes in Reproduction of Minnesota DHI Herds

	1984	1994
<b>Days Open, All</b>	<b>117</b>	<b>144</b>
<b>Days in Milk at First Service</b>	<b>86</b>	<b>91</b>
<b>Conception Rate (%)</b>	<b>57</b>	<b>52</b>
<b>Heat Detection Rate (%)</b>	<b>46</b>	<b>43</b>
<b>Average Milk Production (lb/day)</b>	<b>45.2</b>	<b>54.3</b>
<b>Reproductive Culling (%)</b>	<b>20</b>	<b>17</b>

Changes in Days Open in Minnesota DHI Herds



## MINNESOTA DAIRY LEADERS

In 1992 dairy farmer leaders 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 efforts — that structure is the Dairy Leaders Roundtable. This newsletter highlights Roundtable accomplishments as well as on-going projects and plans.

### Pilot program links dairy producers with team of ag professionals

"Thanks to the support of the Dairy Leaders Roundtable were moving ahead on a pilot project to retain and enhance the business of current dairy farm families," said Rick Haler, chairman of the Dairy Profitability Enhancement Program at the September Roundtable meeting.

The three year project builds on the Dairy Initiative Demonstration Farm concept and will rely on an intensive educational effort to teach farm families and ag professionals the dairy diagnostic and team approach to problem solving. Under the direction of Rob Costello, project coordinator, the plan calls for teams of ag professionals to initially work with 10 participating farm families in Hennepin, Dakota, Scott and Carver counties over a three year period.

The program objectives will be to:

- Retain present dairy farm businesses

- Enhance the profitability of the dairy business, processing plants and agribusiness
- Develop a positive and knowledgeable community attitude toward dairying
- Retain agribusinesses in the target area
- Teach the dairy diagnostic process to ag professionals and gain acceptance of the concept by dairy families
- Stimulate a multiplier effect as a result of the success of

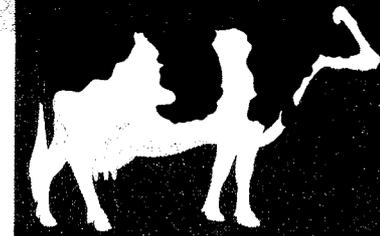
*In addition it is recommended teams establish ground rules that allow for free and open discussion, respect for all ideas, putting the farm families interests first and giving the producer the final say on all goals.*

the project.

- Develop a model for dairy business retention and enhancement throughout the state

As proposed the project will become self supporting after two years and it is hoped the success of the program will lead to its replication in other areas of the state. Results of the program will be reported to the Roundtable and the media.

Four key guidelines for



forming diagnostic teams were identified. They include:

1. Identify team members from among ag professionals already serving the farm family. Keep the team at a workable size consisting of individuals with the best interests of the farm family

in mind. The farm family must make the final decision on all team members and the producer is generally the best choice for the team leader.

2. The team needs a leader and a secretary. The leader is responsible for keeping discussions focused on finding opportunities and solutions for the farm family and the secretary records and distributes goals and action plans.

3. The team should meet on the farm. The first visit should include a short tour and familiarization with the whole operation. A preliminary evaluation of the farm's strengths, constraints and opportunities as well as possible future directions should be considered.

4. Prioritize your list of opportunities. Establish short term SMART goals (specific, measurable, achievable, realistic and time-framed). Decide individual responsibilities and how often to hold team meetings. Summarize all goals and action plans and

distribute to team members.

In addition it is recommended teams establish ground rules that allow for free and open discussion, respect for all ideas, putting the farm families interests first and giving the producer the final say on all goals.

## Minnesota farm numbers, cow numbers continue to decline

Figures compiled by the Minnesota Department of Agriculture show a continuing decline in the number of dairy farms and the number of cows being milked.

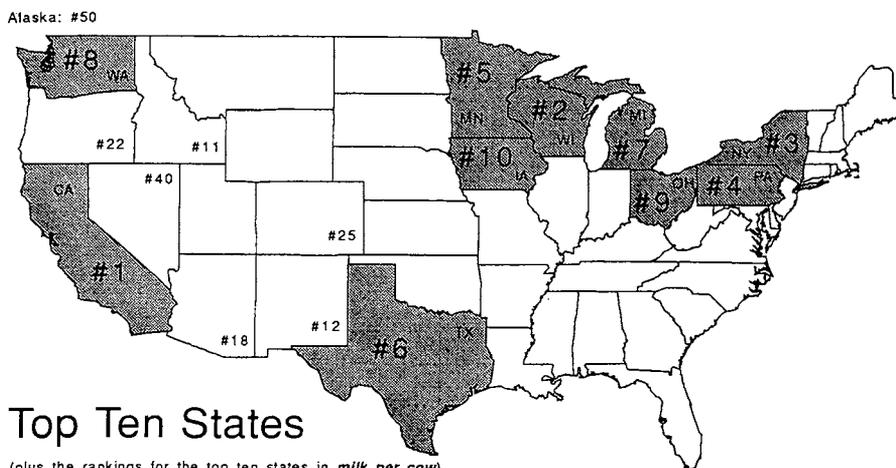
In a presentation before the Roundtable, Mark Pochardt from the ag department reported the number of Minnesota dairy farms has fallen to 11,731 as of September 1995 and continues to decline at a pace equal to nearly three farms per day. Cow number dropped to 600,000 by July, approximately 15,000 fewer than one year earlier. The average number of cows in production per farm continues to slowly increase and now stands at 51.

The decline in farm numbers and cow numbers follows a trend that also is reflected in the amount of milk produced in Minnesota compared on a percentage basis with the U.S. total. Today, Minnesota produces 6% of the nation's total milk supply down from 7.8% in 1983.

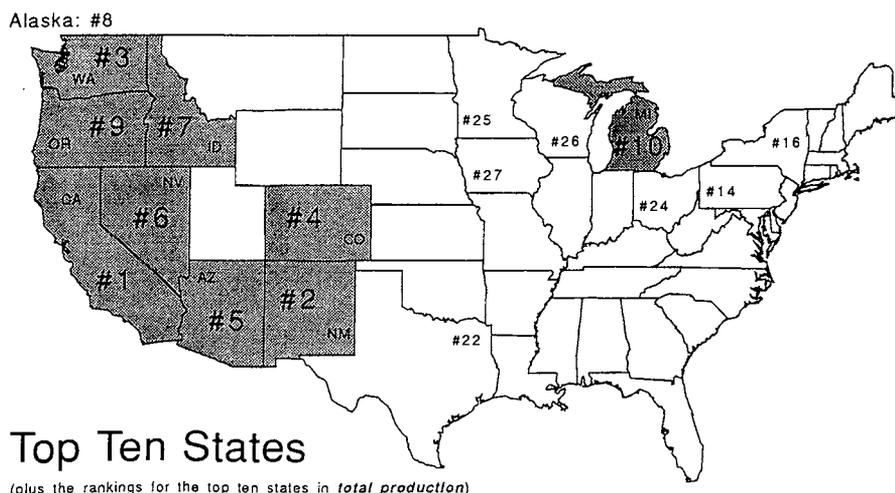
Pochardt noted that the accompanying two charts reflect Minnesota's ranking in total milk production nationwide (5th) and pro-

duction per cow (25th) as of the end of 1994. Minnesota's rankings are unchanged from one year earlier.

## 1994 Milk Production



## 1994 Milk Production Per Cow



## Roundtable Participants focus on Working Together

Focusing on the theme "Working Together Works" participants in the Minnesota Dairy Leaders Roundtable gathered in St. Paul September 13 to receive activity updates and discuss progress being made in the state's dairy sector.

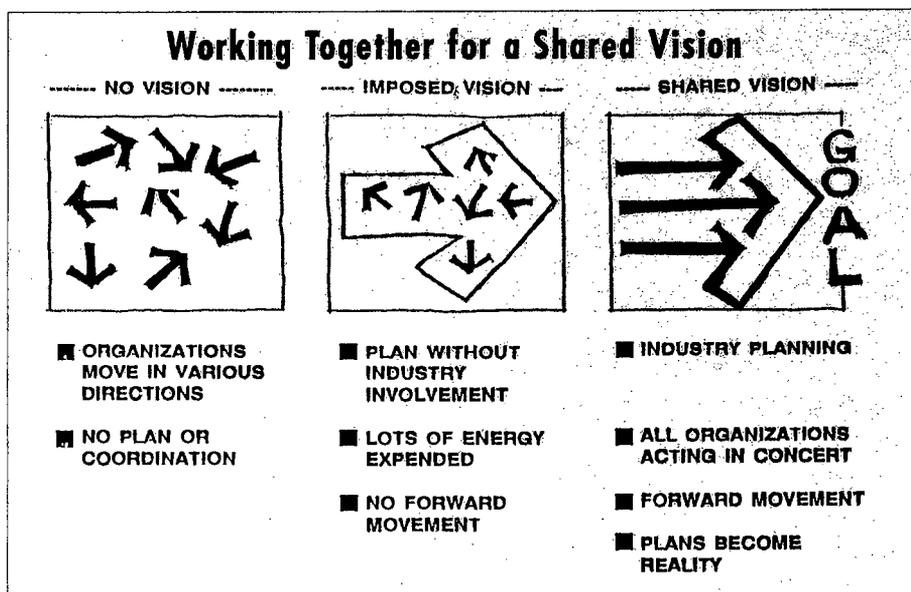
Key items considered at the September meeting included reports by the education and communication coalitions, a discussion of plans for the 1995 legislative session and a review of dairy business retention and enhancement efforts statewide. Several key legislators were in attendance at the meeting.

## Use Events Calendar

"Knowledge is power," said Joe Conlin reporting at a Roundtable meeting, as he urged dairy organizations throughout the state to submit items for the Dairy Calendar of Events (printed elsewhere in this issue). Conlin, co-chair of the Roundtable's Education Coalition said the calendar could be an especially useful tool for producers working to improve their operations. "It's a valuable resource, we want people to contribute calendar items and use it productively."

## Average size of ideal dairy farm is growing

In the late 1970s experts were saying the ideal size for the



dairy farm of the future would be 70 to 120 cows, Edward Lotterman, agricultural editor for the Federal Reserve Bank of Minneapolis told attendees at the June Roundtable meeting. "Now I'm not so sure. My conclusion is that we will see fast movement toward herds with 500 to 600 cows, with an emphasis on low input and low cost operations," said Lotterman.

## Ag Commissioner supports 'bold, positive steps' for dairy

"I'm very concerned about what's happening to the dairy industry. We need to take bold and positive steps to help the industry reach the rightful place it deserves in this state," said Gene Hugoson to Roundtable members at the time of his selection to be the state's new commissioner of agriculture.

"Unless there are more cows in this state we're going to lose some of our processors

and other facets of our agricultural infrastructure," he commented. "We're going through a time of change, which is not surprising since we have been in a continual state of change."

"We need a viable and energetic dairy industry in this state and I am deeply appreciative of the efforts those of you associated with the Roundtable have made to strengthen this industry," said Hugoson who noted that as the successor to retired commissioner Elton Redalen he would have "a tough act to follow."

In commenting on his retirement Redalen said, "The cows are calling me home. I going back to where my roots are and to be with my family. It's been an interesting experience, and I'll never regret it — but I'm going to miss the people," he said. Redalen urged Roundtable members to work more closely with urban legislators. "We're losing rural legislators and we need to form coalitions to be effective in the future," he said.

## DAIRY BUSINESS RETENTION PROGRAM SHOWS PROGRESS

Dairy business retention and enhancement efforts continue in east central Minnesota as well as in Becker and Ottertail counties. In these areas a strategic planning process involving community leaders, farmers, and agribusiness leaders has been created to develop action plans to strengthen the region's dairy industry.

In a report distributed at the June Roundtable meeting George Morris from the University of Minnesota provided an update on the business retention and enhancement program.

In east central Minnesota a volunteer team of individuals visited 45 farms to complete an hour long survey on the producers current and future plans. In response to survey results a number of actions were recommended to improve producer income. These included:

- Developing dairy diagnostic teams
- Encouraging use of computer management models
- Developing dairy producers' discussion groups
- Sponsoring a series of farm tours and dairy educational events

To improve the region's ability to sustain its dairy industry it was recommended:

- Developing local estimates of the economic impact of the dairy industry
- Sponsoring a labor fair for the dairy industry
- Exploring changes in the dairy industry infrastructure
- Exploring planning / zoning issues

Finally, to strengthen attitudes about the dairy industry it was recommended that:

- A public information program be conducted
- Tours be conducted of successful dairy operations

In Becker and Ottertail counties 132 producers completed surveys and recommendations were developed and discussed at community meetings. There was a 97% return rate of all the surveys, which is an outstanding response by those who participated, said Harold Stanislawski, Ottertail Extension Educator. Ken Herbranson, a Dairy Producer, spoke of some of the challenges expanding operations face. Roger Hallberg of Land O' Lakes, Inc and Mark Helland of Otter Tail Power Inc, both see this project as a way to help promote the economy of the area. All those who reported from the Otter Tail/Becker area were enthusiastic about the survey results, and were eager to get started on the work and for support from the Dairy Leaders Roundtable. This was just another example that "Working Together Works".

## Calendar of Events

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

### OCTOBER

- 4 Minnesota Dairy Advisors Regional Mtg Critical Success Factors, Country Side Restaurant, Melrose, MN, 4-9 pm. Contact: Jeff Kearman, 612-743-4626
- 9-12 1995 Minnesota Extension Service Annual Conference (for MES faculty & staff), Mayo Civic Center, Rochester, MN. Contact: Evelyn Falkoski, Registrar 612-625-4783
- 24 Minnesota Dairy Advisors Regional Mtg, Critical Success Factors, Holiday Inn, Detroit Lakes, MN, 4-9 pm. Contact: Vince Crary 218-563-2465.

### NOVEMBER

- 7-8 Dairy Expansion Conference, Rochester, MN (exact location to be determined). Contact: Joe Conlin 612-624-7497.
- 8-9 Dairy Expansion Conference, Stevens Point, WI (exact location to be determined). Contact: Joe Conlin 612-624-7497.
- 20 Fall State Sale, Hutchinson, MN. Contact MN Holstein Assn 612-259-0637.
- 11/27-12/8 Dairy Workshop-Reproduction, Fergus Falls, Roseau, Thief River Falls, McIntosh, Detroit Lakes. Contact: Sheldon Erickson, 218-463-1052.

### DECEMBER

- 12 Minnesota Dairy Advisors Annual Mtg, St. Cloud, MN (exact location to be determined). Contact: Jeff Reneau 612-624-9791.
- 13 Dairy Expo, St. Cloud, MN. Contact: Stearns County Ext Office 612-255-6169.
- 12-14 Personnel Workshop, LaCrosse, WI (exact location to be determined). Contact: Joe Conlin 612-624-7497.

### JANUARY

- 10-12 NRAES National Conference-Calves, Heifers and Dairy Profitability, (Facilities, Nutrition and Health), Harrisburg, PA. Contact: NRAES 607-255-7654 or Jim Linn 612-624-6789
- 17-18 Dairy Cow College (2day), Victorian Inn, Hutchinson, MN. Contact: Jim Linn 612-624-6789.

## 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."

### 1995 STEERING COMMITTEE:

Rhondo Amundson, *Minnesota Rural Futures*

Jim Bennett, *Minnesota Veterinary Medical Association*

Bill Dropik, *Minnesota Milk Producers Association*

Mark Furth, *Associated Milk Producers, Inc.*

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

Dick Goodrich, *University of Minnesota*

David Peterson, *First District Association*

Gene Hugoson, *Minnesota Department of Agriculture*

Vern Smith, *Minnesota Bankers Association*

Ed Frederick, MDLR facilitator, Southern Experiment Station Annex, 12298 350th Ave. Waseca, MN 56093-5160

## Beyond the Bottom Line: Transferring the Family Farm

If you're starting to think about passing the family farm to the next generation, you're probably bracing yourself for a real roller coaster of a time. It's true that the process is full of many challenges—from managing the nitty gritty financial and legal matters to coping with a wildly mixed bag of attitudes and emotions. But you can make it a much smoother ride if you make the effort before you begin the transfer to learn, think, plan, and communicate. The following advice, taken from a series of fact sheets prepared by extension farm management expert Erlin Weness, can help you.

### Think about Timing

When is the right time to transfer the farm? That depends on a lot of things. For instance:

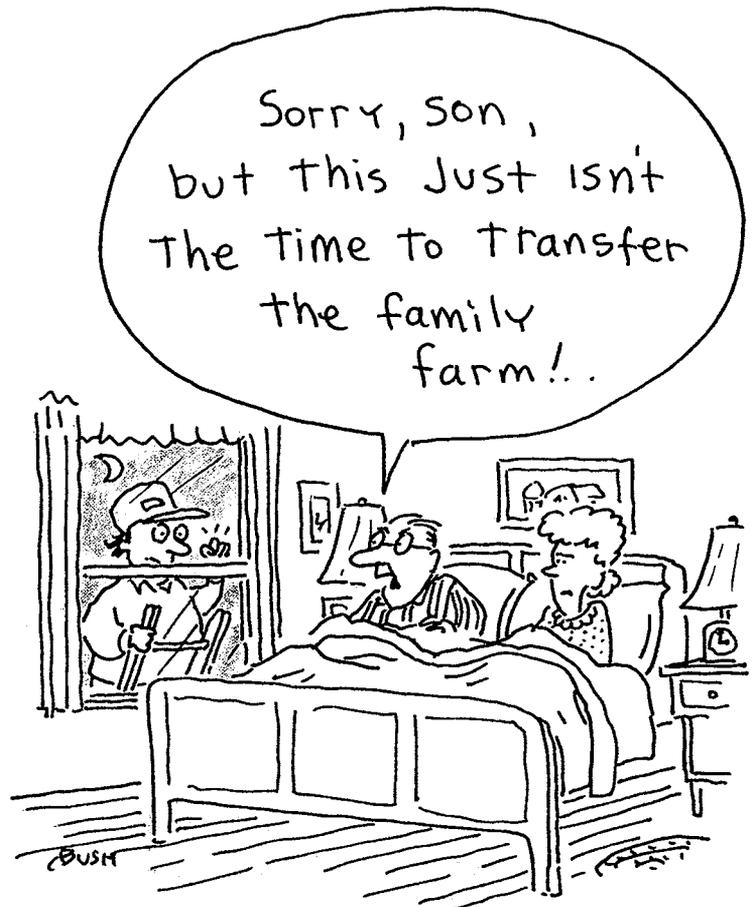
**Financial Matters.** Do you have enough money to meet your living expenses, including medical and nursing home costs? Does the entering farmer have enough money saved to get a good start? Or, perhaps more to the point, are you willing to sacrifice some of your financial assets to help get the young person started?

**Social Security.** If you have contributed a lot to social security over the years, you may come out ahead by retiring at 62. If your contributions have been low, you'll probably be better off waiting until 65. Contact your local social security office for more information.

**Attitudes and Goals.** Are you ready to let someone else be in charge of the farm? Is the "someone else" ready to take charge and really interested in doing so? Would you like to try some adventures that your farming routine never allowed?

### Do a Reality Check

Before you stick even your big toe into the business of transferring the farm, ask all parties—including yourself—some serious questions. Do you want to stay involved in the farm? Are you willing to move from your house? Does your son or daughter really want to farm? Are you able to work together to create a transfer plan that meets everyone's needs?



Such questions will help you decide whether a transfer from one generation to the next is appropriate.

### Consider the Options

If you decide that a transfer within the family is the right thing for your farm, the next thing to do is to explore the alternative ways of carrying it out. Each has financial implications. The method you choose also can affect how satisfied you and the entering farmer are with the transfer. Be sure to think about all angles, communicate among yourselves, and consult with appropriate financial professionals as you weigh the choices.

**Outright Sale.** Perhaps the most obvious option is to just sell the whole works—land, machinery, livestock, buildings, house—at one time. This may seem clean and simple. However, usually it's impossible for the younger generation to come up with the money for a cash buyout. It also can result in a hefty income tax bite if the property has appreciated

Continued on page 8

## Transferring the Family Farm

*Continued from page 7*

### Household Hint:

**If you decide to sell your farm to your son or daughter, don't just throw the house into the deal. Rather, make that a separate real estate transaction. By doing so, you can take advantages of some tax breaks that apply to homes only. Ask a tax consultant for details.**

substantially over the years. There are self employment (SE) tax considerations, too, in the case of crops and market livestock. You may have to pay less SE tax if you sell all such property in a single tax year. But on the flip side, you may end up with better social security benefits by paying more SE tax.

**Installment Sale.** By reporting the sale of your property in installments, you can spread taxes out over the years. This can reduce taxes. However, it also can increase your alternative minimum tax, and it can't be applied to machinery and other Section 1245 property. Installment sale also prevents your heirs from inheriting property at a stepped up basis if you die during the process.

**Piecemeal Sale.** Another option is to sell your assets over two to three years. This can help you avoid a big tax bite all at once. Your son or daughter may appreciate not having to fork out a lot of money all at once. On the other hand, you may lose your ability to deduct depreciation on equipment that you haven't yet sold but aren't leasing out or using in your own business either.

**Lease.** You may choose to lease property to the incoming farmer. This lets you earn income from rent and still keep ownership and depreciation deductions. Also, if you hang onto the property until you die, the cost basis for your heirs is the value at the time of your death, whereas if you sold it, you would pay income taxes on the increase in value from the time you obtained it. However, leasing also can have some negative tax implications.

**Tax-Free Exchange.** In this case the new owner trades his or her property for yours. As long as it's the same kind of property, you won't need to pay income taxes on the transaction. However, this only works if the incoming farmer has something to exchange.

**Gift.** You can give up to \$10,000 a year worth of property to a person (\$20,000 per couple) without filing gift tax. A gift can reduce your income tax and reduce the taxes on your estate. However, when you give something away, you lose any income it generates and control over its fate. Be sure your generosity doesn't compromise your own finances.

## To Loan or Not to Loan?

**ONE WAY TO help the new generation get a start on the farm is to lend money. However, as many have found out the hard way, lending money to relatives can do terrible things to relationships. Not only that, but if you aren't repaid, the IRS will likely consider the loss a gift rather than a deductible bad debt. It's probably better to help your son or daughter obtain an FmHA or other loan instead. But if you do decide to become the lender:**

- **Get it in writing—including the interest rate, repayment schedule, and what will happen in case of default.**
- **Charge interest at or near marketplace rates.**
- **Be strict about getting your payments when they are due.**

## What about Farming Together?

**OFTEN WHEN A farm passes from one generation to the next, parents and children will farm together for several years. This can be a great chance to "test the waters" to see whether the transfer is going to work.**

**How to do it? One way is to hire your son or daughter for a few years before actually transferring any property. Another is to farm side by side, with the incoming farmer taking complete control over part of the operation, including finances. However you proceed, be clear about the trial aspects of the arrangement. If after a trial run the incoming farmer decides this isn't for him or her, that's okay. Similarly, if you decide you're not comfortable with the way that person manages his or her responsibilities, you're much better off having discovered that before you undertake a complex transfer.**



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**Beware of This Advice!**

**THE TAX IMPLICATIONS of transferring a farm are complex. The involvement of professional legal and financial advisors is critical to making sure you are doing things legally and keeping the costs of the transfer as low as possible. DO NOT rely solely on any single source of advice—including this one. The information you read here is provided for educational purposes only. It is not legal advice and is not intended to be a substitute for professional assistance in developing your plan.**  
 .....

**Partnership or Corporation.** If you are transferring the farm to more than one family or have a big operation, it may work best to create a partnership or corporation. Once you've created the structure, it's a fairly simple procedure to transfer partnership units or corporation shares. Forming a partnership or corporation is a complex process, however. Get adequate tax and legal advice and weigh the options carefully before you commit yourself in this way.

**Revocable Living Trust.** Many farmers put property into a living trust. This lets you retain control of the property while saving your heirs the cost of settling your estate when you die. It also allows you to give individual children or others the right to rent or buy specific parts of the property at a given price and terms after you die. However, it'll cost you something to set it up and there are a few important income tax implications. Again, professional advice is key to finding out if this is the right choice for you.

**Hybrid Method.** Sometimes the best way to transfer property to the next generation is actually a combination of two or more options. For example, you could lease your cows and land to the incoming farmer, sell all the buildings at once, and sell the machinery over a period of several years. Or you might sell the house and the 10 acres it sits on to your son or daughter and rent out the rest of the property.

Which alternative should you choose? That depends on many things. A big consideration, of course, is minimizing taxes. A good tax advisor is indispensable. But how you transfer the property should also take into consideration personal factors such as your relationship with your son or daughter, the amount of independence you and the incoming farmer would like, and your goals for your retire-

ment years. Remember, too, that what works for someone else may not be best for your family—and what bombed for the farmer down the road could be just what meets your needs.

**Consider the Rest of the Family**

It can be difficult to help the son or daughter taking over the farm make a go of it while not leaving other children feeling slighted. As you work to balance things out, recognize that fair is not necessarily the same thing as equal. You may feel, for instance, that helping with college expenses of those leaving the farm compensates for gifts or special prices offered to the farming son or daughter.

The most important thing is to plan ahead to avoid conflict both during your lifetime and as your estate is being settled. Extension fact sheet FS-6310-A (part of the *Transferring the Farm Series*) provides useful advice on finding fair ground when deciding how you'll allocate things to farm and nonfarm children.

**Develop a Written Transfer Plan**

A written plan is an important part of the farm transfer. It lets everybody involved know what to expect. It decreases the amount of uncertainty you all feel. It gives the incoming farmer a sense of control over his or her future. It provides you and your tax planner something to look at to make sure you've done everything you should to minimize the tax burden.

In short, the more you've worked out on paper ahead of time, the easier you'll find the actual process of making the farm transfer.

**Get Professional Advice**

The most important thing you need in order to engineer a successful farm transfer is the willingness to ask for help. Your tax accountant and lawyer are key players in developing the plan. Many others—farm management association consultants, extension educators, vo-ag instructors, insurance agents, and financial planners—are also key sources of valuable information and perspective. Seek and use their advice! It may cost you something at the outset, but in the long run could save you tens of thousands of dollars, not to mention headaches, sleepless nights, and damaged relationships. 🐄

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**Get the Facts**

**The Minnesota Extension Service offers a 15-sheet series of publications covering the various angles of transferring the family farm. Topics covered include tax considerations, ways of making the transfer, and considering off-farm heirs. For more information ask your county extension educator or specialized dairy extension educator about PC-6317, *Transferring the Farm Series.***  
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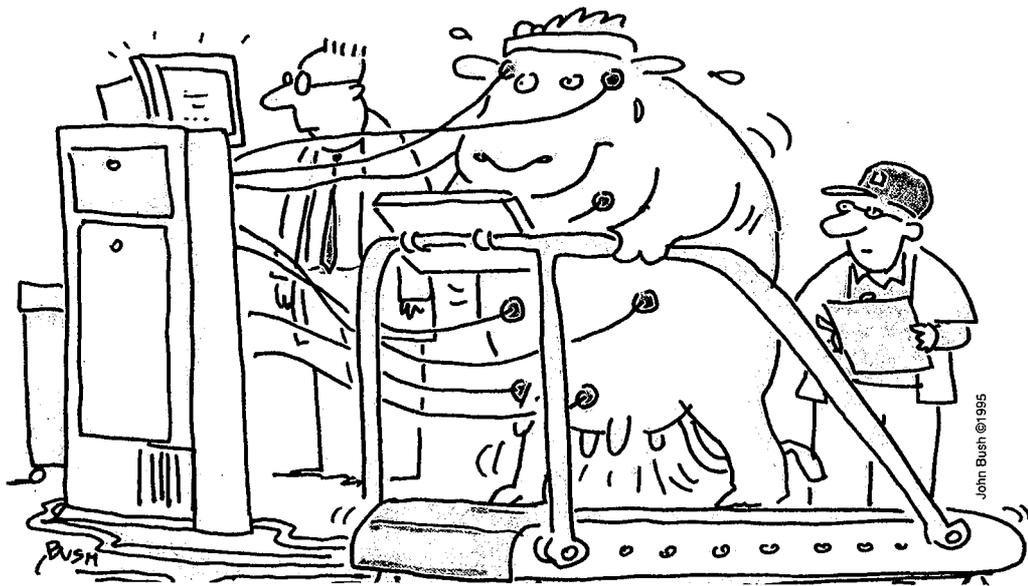
# Farms That Grow Knowledge

**M**ost of Minnesota's farms raise things you can see and touch—cows or hogs or crops or turkeys. But on a handful of them the main product is better ways of doing things. Known collectively as the Minnesota Agricultural Experiment Station, these farms are a key source of new information and ideas to help farmers stay current in the changing world of agriculture.

## A Statewide Network

The MAES was established more than a century ago by the Minnesota legislature to provide testing grounds for new ideas in agriculture. Over the years, it has been the source of countless improvements in farming, including many procedures, crop varieties, and miscellaneous inventions you probably use in your own operation (see box). Today, hundreds of scientists conduct research at the St. Paul campus headquarters or at one or another of the five branch stations scattered around the state.

Until recently, there were seven experiment station dairy herds. Today there are four—at Crookston, Morris, St. Paul, and Waseca. Because of funding problems some of these remaining herds may well be reduced or eliminated in the near future.



## The Answer Team

**SHOULD I FEED fish meal to my cows? When do I wean the calves? Can I pasture my cows and still get good yields? What should I feed my steers? How can I reduce mastitis in my herd?**

**It seems like in dairy farming, just when you start to feel like you know all the answers, a new question pops up. That's why Minnesota Agricultural Experiment Station herds exist. Your business is one of constant change, with new demands and opportunities every day. Rather than leaving you to rely on your own best guess or that of the neighbor down the road, the experiment station gives you solid, research-based answers to your management questions. As new ideas and options arise, the MAES is there to test them and provide you and those who advise you—your extension educator, your feed dealer, your veterinarian, and so on—with the information you need to make wise choices.**

## Who Pays?

Where does the money to support the MAES come from? From you, in part, through your state and federal taxes as well as through your support of the state's dairy industry. More than half of the experiment station's budget is funded by the state's general agricultural special appropriation. The MAES also gets support from federal appropriations, product sales, gifts, and grants. Many producer groups and processors voluntarily give money to help keep the experiment station going. Even the research subjects themselves help pay their own way by generating income for the facility.

## Working for You

Because the MAES is the seedbed for new knowledge, it is an important part of the process of continual improvement that is so important in farming today. If you get more milk per cow and more bushels of corn per acre than your grandfather did, you can thank the experiment station. And research done at the experiment station today will help you stay in the running in the face of heavy competition from dairy operations in other states in the months and years to come. 🐄

## Minnesota Agricultural Experiment Station Dairy Herd Profile

LOCATION	CROOKSTON	MORRIS	ST. PAUL	WASECA
<b>HERD</b>	105-cow milking herd, 98 heifers, 84 dairy beef	88 Holstein cows and replacements	81 milking cows; heifers raised at Morris	100-cow milking herd plus youngstock and dairy beef
<b>FACILITIES</b>	Remodeled in the late 1980s, the Crookston dairy facilities house the milking herd in comfort tie stalls. The calf barn includes 24 separate pens and six group pens. Other animals are housed in a bedded loose housing pole barn or a slatted floor barn. The milking facility is a double-5 herringbone parlor.	Milk cows are housed in a tie-stall barn equipped for measuring individual feed intake. Cows are milked with a pipeline system. More than 150 acres are available for pasture, with a portion of the herd wintered outdoors. Hutches and group housing are available for replacements.	Herd is housed in a 90-cow tie-stall barn with a flush manure system. Animals are fed a TMR on an individual basis for collection of nutrient intake data. Milking parlor is a double-5 herringbone. Facilities also include special areas for treating sick and lame cows and six maternity stalls.	Facilities include an 84 free-stall slatted floor barn with a central bunk feeding system for each of four production groups. Cows are milked in a double-6 parlor. Calves are housed in individual hutches and later in superhutches. Steers, heifers, and dry cows are housed in group pens and a free-stall slatted floor barn.
<b>AREA OF EMPHASIS</b>	nutrition, genetics, and management	modest-sized farming, rotational grazing, sustainable dairy farming	feed evaluation and nutritional physiology	genetics, cow health, reproduction, physiology
<b>MAJOR RESEARCH PROJECTS</b>	Source of the first research on high-moisture barley, the first experimental tank design for liquid manure storage, and first research on post-milking teat dips. Recent and current studies focus on improving fertility, feeding byproducts, performance of early- and late-weaned calves, and genetic improvement with emphasis on body size.	Research focus includes surveying farmers who have adopted management intensive grazing, approaches to pasture renovation, nitrate leaching in pastures, supplementation of lactating cows to meet exercise-related energy requirements, and relationship of forage quality and quantity to milk urea nitrogen.	Recent and current research includes forage evaluation, use of byproducts in feed, evaluation of products to promote milk production and growth, nutritional physiology, calcium in rations, udder edema in heifers, evaluation of BST on production and health, and use of high fat in milk replacers and calf starters.	Past studies have focused on improving cattle by selecting for milk yield and protein. Current studies focus on physiology and metabolism with divergent genetic lines for milk production. Other research includes interrelationships of calf and heifer health, nutrition, and management; use of reed canarygrass for forage and bedding; and Holstein beef production.

### ••••• Editor's Note: •••••

**P**roposals have been on the table to reduce or eliminate dairy herds from Minnesota Experiment Stations as part of University cost-cutting measures. This could drastically reduce our ability to make and apply new knowledge to improve Minnesota dairying. If you favor continued support of research in dairy, consider taking time to let your legislator know that you favor consolidation rather than elimination of programs. Your support could help determine how well your children and grandchildren will be able to keep up in the changing world of dairy farming.

—Jerry Steuernagel  
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**DAIRY**

# Initiatives

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