

UNIVERSITY OF MINNESOTA

# DAIRY Initiatives

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N E W S L E T T E R

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## The Future of Minnesota Dairying

*Change can spell opportunity*

By B. J. CONLIN, extension dairy specialist

**C**hange is the norm in the Minnesota dairy industry and has been since our ancestors brought the red cows with them to settle on the land. Back then milk the family didn't use was often sold to the city cousins. Production grew and farmers formed local coop creameries to handle the growing milk volume, create better markets, and improve production efficiency. The dairy industry grew and prospered for many good reasons: plentiful supply of low-cost feeds and water, good place to raise forage crops, desirable climate, and hearty people with a strong work ethic.

Today change continues, powered by changes in family needs, life goals, government policies, interest rates, technology, and other forces. Many have thrived by taking advantage of the same factors that caused the industry to grow and prosper in the first place, and by viewing change as a friend and an opportunity. The engine of change has a good head of steam and is not likely to slow down soon. Good decisions usually take advantage of the direction of change; therefore, recognizing and thinking about where we are going is an important step in good decision making.

In many cases the future is already here, and in others it is emerging. The direction of change is often quite obvious as we study and think about the recent past. Thinking about the future helps us be ready when it arrives. Below are my top ten dairy trends that are taking us to the future. You may have ideas to add and some would like to say it differently. That's okay.

*Continued on page 2*

**A Look Into the Crystal Ball**

**HERE'S** what extension dairy specialist Joe Conlin sees when he looks at a typical Minnesota dairy in 2005:

- at least 100 cows
- average production more than 20,000 lb/cow/year
- average yield of more than 500 lb milk per labor hour
- half of all grains/concentrates are purchased
- 45 percent of all forages are purchased
- 20 percent of all feed is purchased
- amount of land owned is less than 1.5 acres per cow

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

## The Future of Minnesota Dairying

*Continued from page 1*

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 .....

**Emphasis on Profitability, Efficiency, and Quality of Life.** Profitability will rise as producers increase productivity and adopt only technologies that have a net benefit to them. Producers will emphasize controlling costs and managing profitability and people. Tasks will be more routinized and specialized. Higher value will be placed on education and seeking advice and information from unbiased experts. Dairy people will take more time for family and relaxation.

**Restructured Farms.** Minnesota will have fewer but more specialized dairies with larger herds and a smaller land base. More feed will be purchased rather than raised. More farms will have multiple owners and operators. Vertical integration with the input and market sectors through contracts or other business arrangements will be common. Intergenerational farms will be less prevalent.

**Focus on Quality Management.** Dairying will increasingly be rooted in quality management concepts for continuous improvement. Employees will become a more highly valued asset. Producers will focus on more efficient systems and use of management information, strategic and tactical planning, teamwork, and precision management. Action plans, monitoring, and controlling will be keys to successful management.

**Increased Networking and Collaboration.** Going it alone will give way to many different forms of doing business together. Arrangements may range from various forms of shared ownership to leasing equipment and animals, hiring others to raise replacements or spread manure, or establishing purchasing and marketing agreements. Consultants and discussion and advisory groups will be valued sources of perspective and expertise.

**More Volatile Prices.** With less government involvement in pricing, milk and feed prices will fluctuate widely. Producers will increasingly turn to contracts, futures, and options to manage risk. Use of commodities and alternative feed sources will increase.

**Consumer-Driven Markets.** Demand for dairy products will grow as new products are developed and the industry becomes more responsive to con-



sumer preferences. Health and safety concerns will become increasingly influential. International and niche markets will grow.

**Shifts in Agribusiness.** Mergers and consolidations will result in fewer and larger businesses providing inputs, services, and markets for the industry. Advice and information will increasingly come from specialized, private-sector sources. Information, technology, and services will become internationalized.

**Public Policy Changes.** As pricing is deregulated, supply/demand and quality will gain greater influence on markets. Nonagricultural people will become more involved in setting agricultural policy. Other public policy issues will include health and safety and animal care. Broad government policy on taxes, interest rates, etc., will have a greater impact on farms.

**Environmental Protection.** Producers will be responsible for minimizing the environmental impact of manure. Emphasis will be on balanced nutrient cycling of nitrogen and phosphorus, integrating crop needs with manure application, and use of storage systems that protect water quality. Farmers will continue to value protective stewardship of natural resources.

**Location of Dairy Farms.** Dairy farms will cluster in areas that have supportive communities, cost-competitive feed, a favorable climate, a solid infrastructure, and people with both an interest in dairying and the needed resources. Local and state governments will become more involved in location and environmental issues. 🐄

# What's the Future for Farm Milk Prices?

by JEROME HAMMOND, professor of applied economics

**W**hen making decisions about things such as culling the herd, retaining heifers, or renovating or expanding facilities, producers need to consider future prospects for milk prices. The objective of this article is to describe the key forces influencing milk and milk product prices and to make some general predictions about milk prices during the next several years.

## Key Factors Influencing Milk Prices

Commercial supply and demand for dairy products will largely determine milk prices for the foreseeable future.

Milk supply is determined by milk prices, input prices, cow prices, changes in production technology, improvements in inputs, and opportunity costs for resources used in milk production. These factors resulted in a net increase in annual U.S. milk production by an average of 0.8 percent per year from 1990 through 1997, despite an overall decrease in number of milk cows and dairy farms. Some regions, such as the Upper Midwest and Northeast, experienced declines in production, but these declines have been more than offset by increased production in the Southwest and Pacific Northwest. Importantly, gains in the Southwest have been achieved with lower producer milk prices than in the Upper Midwest. As total milk supply has grown, average annual milk prices held quite constant. Though not good news for many dairy farmers, this means that milk supply can expand at about 1 percent per year at existing average milk prices.

On the demand side of the market, commercial use of all dairy products has grown an average of about 1.9 percent per year since 1990, although the rate of increase has slowed substantially in the past two years.\* It appears that about half of this growth has been increased domestic demand resulting from population growth (about 1 percent per year). Moderate growth in per capita income, a small decline in real dairy product prices (inflation-adjusted nominal prices), a small response to product promotion, and expansion of commercial exports accounted for the other half of the increase. The expansion of exports has resulted largely from the special dairy export incentive program (DEIP). Further expansion of exports under DEIP is limited because of the General Agreement on Tariffs and Trades (GATT).

In the future, federal pricing programs will have only a minimal impact on prices received by producers for several reasons. First, the floor on federal price support program has been lowered until it's no longer effective. And the 1996 Farm

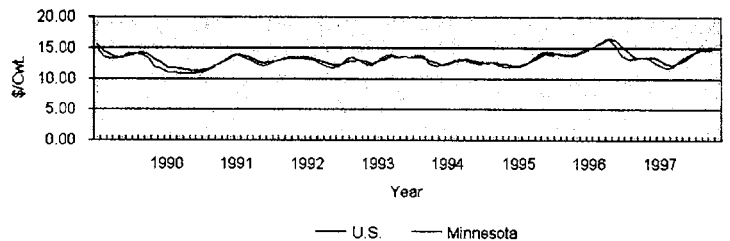
Bill, or the Federal Agricultural Improvement and Reform Act of 1996 (FAIR), eliminates the floor after 1999.

The federal milk order program, which fixes processor buying prices for milk according to use and marketing area, ties minimum class prices for milk to market-determined values for manufacturing use milk. Reform of the federal order will reduce the number of federal order markets from 31 to 11 and alter fluid class prices. Though proposed changes include potentially large fluid-use price changes for some regions, the net impact on producer prices in the Upper Midwest is likely to be minimal because so little milk here is used in fluid products.

## Future Milk Prices

A good predictor of future milk prices is the behavior of monthly milk prices from 1990 to date, as illustrated below. Three characteristics of milk prices are readily apparent for this period.

First, average Minnesota and U.S. milk prices are very similar. This implies to me that whatever occurs in the entire U.S. milk industry essentially determines prices paid to Minnesota producers. Second, there is no overall upward or downward trend in milk prices. For the last eight-year period,



monthly Minnesota milk prices averaged \$13.07/cwt. For six of these years, average monthly price was within \$.25/cwt of that figure. Third, milk prices vary substantially within years, with an average annual range of \$2.68/cwt. This strongly influences producers' monthly milk sales revenue. Within-year income variation is accentuated or moderated depending on a producer's seasonal pattern of milk production.

Minnesota producers can expect average annual milk prices for the next two to four years in the \$12.80 to \$13.25/cwt range. However, expect high within-year price variation to also continue: In response to short term factors, prices may range from \$17.00 to less than \$11.00/cwt. For planning purposes, focus on the average monthly prices of the last seven to eight years. 🐄

\*Growth in commercial use was able to exceed growth in production because government removal of product from the market to support milk prices was reduced.

# Producing a Profit

**What does it take to come out ahead in today's dairy environment?**

The dairy industry is changing today like never before. Not surprisingly, the recipe for success has changed, too. If you want to be profitable today, says extension animal scientist Joe Conlin, you need not only the strong work ethic that built our farms in the first place, but also a plan for how you can best apply that hard work to meeting your goals for your farm, your family, and your life.

To develop a plan, Conlin and extension educator Lee Gross suggest you answer the following questions. Seek input as needed from agribusiness professionals and others who are familiar with dairying and your farm's unique circumstances. When your plan is complete, refer to it often. It will help you stay on track as you move into a clearer, more profitable future.

## 1 Why Are We Doing This?

Start by identifying exactly why you and the other members of your dairy operation are in dairy farming. Is independence important? Do you like working with animals? Being out in the field? Keep these values in mind as you develop your plan. After all, the most profitable farm in the world does you no good if in the process of becoming prof-

itable you've eliminated all of the things that drew you into farming in the first place.

## 2 Where Are We Now?

Make a list of your farm's strengths, weaknesses, opportunities, and threats (SWOT analysis). Calculate key measures of economic and production performance for your operation as shown in Table 1.

TABLE 1. Characteristics of Minnesota's most and least profitable dairy farms.\*

Farm Characteristic	low	high	yours
herd size	54	73	
production (lb/cow)	14,639	19,812	
milk price (\$/cwt)	14.56	14.99	
feed cost (\$/cwt)	7.88	5.66	
returns on assets (%)	0.4	11.9	
net return (\$/cwt)	-2.10	3.43	
operating expense ratio (\$/\$1 income)	0.83	0.66	
cash cost of production (\$/cwt)	17.62	13.15	
debt/asset ratio (%)	57	34	
net farm income (\$/year)	-8,105	102,608	
total family living expense (\$/year)	25,538	33,837	

\* High and low figures are averages for the 20 percent most profitable and 20 percent least profitable farms from the 1996 Minnesota Farm Business Report of more than 800 Minnesota dairy farms.

## Signs of a Healthy Business

**PROFITABILITY.** Returns on assets are at least 6 percent, preferably 1.5 to 2 percent above prime interest rates. Return on assets for new investments are above lending rates. Returns on equity are higher than a CD or treasury bill.

**LIQUIDITY.** You pay bills on time. Assets are at least 1.25 times liabilities. Working capital (assets - liabilities) is more than 25 percent of the value of farm production.

**SOLVENCY.** Your equity-to-asset ratio (owned assets/total assets) is greater than 60 percent.

**FINANCIAL PERFORMANCE.** Asset turnover ratio (value of production/total farm assets) is greater than 35 percent. Operating expense ratio (operating expense/value of production) is less than 65 percent. Depreciation expense ratio (depreciation expense/value of production) is less than 12 percent but more than 5 percent. Interest expense ratio (interest expense/value of production) is less than 12 percent. Net farm income from operation ratio (net farm income/value of production) is greater than 20 percent.

## 3 Where Do We Want to Be?

Change the Midwest practice of taking what's left for family living by starting with it. Decide how much money you want to cover family living expenses. Consider noneconomic goals, too. Design your future to achieve these goals and focus on getting there. How much time do you want for family, vacation, hobbies, community service, and other pursuits? Explore alternatives and keep an open mind.

## 4 How Will We Get There?

The profit you derive from your dairy herd depends on the price you get for your products, what it costs you to produce them, and how much you produce:

$$\text{profit} = (\text{price} - \text{cost}) \times \text{volume}$$

If you are not now achieving the family income goal you set in Step 3, you need to change one or

more of these. The information you recorded in Table 1 and the figures for high and low farms can help guide you as to areas in which you can most improve. So can input from a good team of advisors (see article page 6). Some suggestions:

*Increase the price you get for products.* Quality milk premiums can often make a dollar or more difference in the milk price. High-solids milk brings a better price per hundredweight. Balance quantity and milk component solids to maximize total returns. Increasing income from animal sales and growth in animal inventory can also help you increase the value of your products.

*Reduce the cost of producing products.* Many Minnesota farms can benefit by controlling the cost of producing milk. Key things to look at include increasing the efficiency of feed use, reducing calving intervals, reducing mastitis problems, improving forage quality, using a competitively priced ration, and providing a quality air environment.

*Produce more.* There are two ways to increase the milk marketed: increase production per cow or increase cow numbers. Adding cows is NOT an effective strategy unless the herd is profitable. Strengthening profitability is often the best first strategy before increasing cow numbers. An increase of 1,000 pounds of milk per cow typically reduces the cost of producing 100 pounds of milk by \$0.30 to \$0.50/cwt. If you do decide to increase herd size, it's best to do so in steps toward a well-thought-out goal.

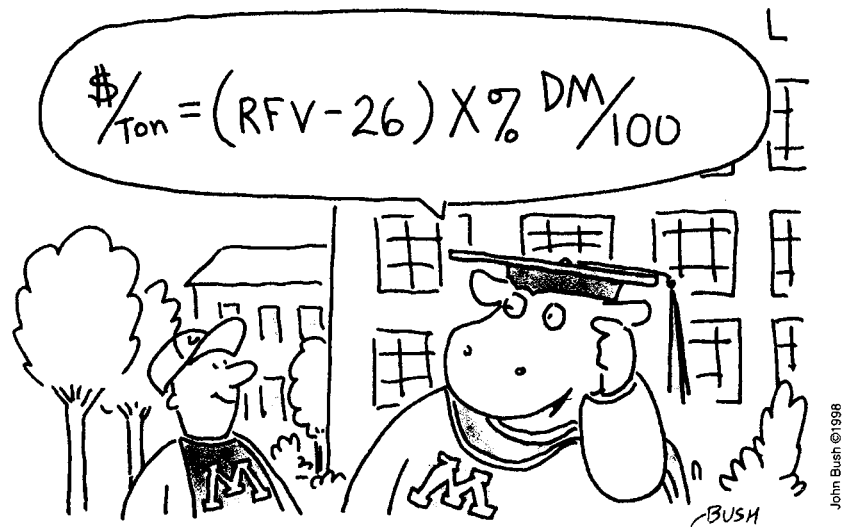
## 5 How Will We Track Our Progress?

You can't manage what you can't measure. Good financial and production management records are the key to identifying progress and opportunities and knowing how you compare with others.

## 6 What If Things Don't Go As We Hope?

What if none of your children wants to take over the farm? What if federal farm policy radically changes your financial picture? What if it's clear after several years that your changes are not achieving the profitability you aimed for?

Your plan should include a mechanism for reevaluation should things take a turn to the unexpected. Keep talking to family and others. Keep reviewing your goals. Don't wait to make changes. Make use of people around you. Look for new ideas. A successful business is a happy place to work and meets the goals of the families. 🐄



John Bush ©1998

# Your Partner in St. Paul

*Meet an invisible ally that's helped make your farm what it is today*

**H**ow do you know how much protein to feed your cows? Where did you learn how to care for calves? If you trace your "cow sense" back to its roots, chances are much of it originated in the University of Minnesota's Department of Animal Science.

Located on the St. Paul campus just outside the state fairgrounds, the Department of Animal Science is Minnesota's number one source of knowledge related to dairy cows. Most dairy professionals in the state have received at least some of their education from the department, either as students or through its many outreach programs. And many of the widely accepted approaches to animal husbandry, such as the use of SCC as an indicator of mastitis and procedures for feeding colostrum, have been developed or refined here.

According to department head Abel Ponce de León, maintaining a close link with the reality of dairy farming is a priority.

"We try to work together with the industry as much as possible by gathering information from producers and assessing producer problems, then carrying out research to help solve them," he says. "In teaching, we prepare the future leaders of agriculture for the state and the nation."

The department is currently going through a period of growth and reinvigoration. A major renovation of Haecker Hall, the department's headquarters on campus, will be completed this fall. All are invited to reinauguration ceremonies at the new facility October 15-17.

For more information on the Haecker Hall reinauguration or on Department of Animal Science and how it is helping you and other dairy producers around the state, phone 612-624-2722 or check the department's web site at <http://www.animal.agri.umn.edu>. 🐄

You're invited to . . .

# Team Up for Success

If you'd like to improve your farm but don't know quite where to start, the Minnesota Department of Agriculture has a deal for you.

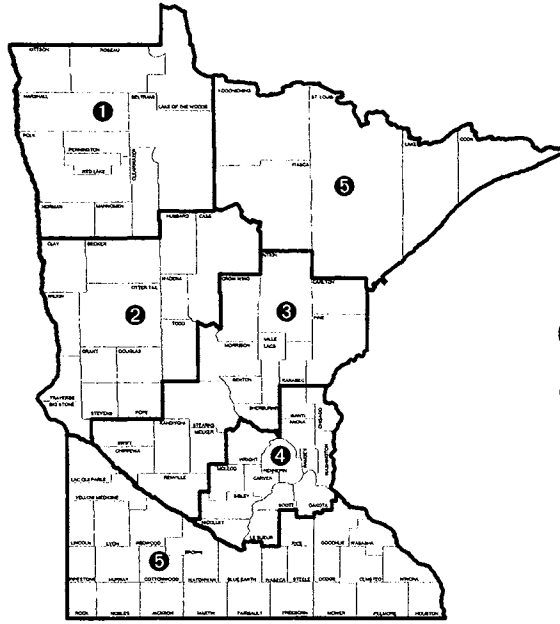
The deal is called the Dairy Diagnostic Team program. It was set up last fall to help Minnesota's dairy industry become stronger, farm by farm. For little cost to you, it will help you assemble a team of experts who can offer practical, realistic suggestions for improving your farm's ability to meet your goals, whatever they may be.

The program works like this: First you contact the person in charge of the program for your area (see map). That person helps you create a diverse team of dairy experts. After going through training, the team tours your farm to get a feel for your operation and your goals and needs. Then it works with you to develop a strategic plan. As you carry out the plan, team members to follow your progress and provide guidance as needed.

So far nearly 100 farms are participating in the program. Results have already started to roll in:

- On one farm, SCC has dropped nearly 200,000 and the rolling herd average has gone up by 1,200 pounds.
- Two farms showed production increases from 50 to 62 pounds of milk per cow after making team-recommended changes in their rations.
- One producer restructured farm debt and obtained an FHA loan with the help of the diagnostic team.
- One farm cut milking time by 1½ hours by remodeling with the advice of the diagnostic team.

MDA hopes to have close to 700 farms participating by June 1999. If you'd like to be among them, contact your local dairy extension specialist or Katy Kulesa toll-free at 800-967-2474 (215-3946 in the Twin Cities metro area). 🐄



Dairy Diagnostic Teams and Regions

## Dairy Funding Grants

The Sustainable Farming Assn. of MN  
DeEtta Bilek (218) 445-5475  
MN Forage and Grassland Council

- ① - NW MN Dairy Team  
Vince Crary (218) 563-2465
- ② - West Central MN Dairy Team  
Harouna Maiga (218) 847-3141  
Jerry Martens (218) 736-5216
- ③ - Central MN Dairy Profit Team  
Al Gulbransen (320) 693-3236  
Jim Saffer (320) 255-6169
- ④ - DPEP/Carver County  
Theresa Feist (612) 442-3022
- ⑤ - Riverland College  
Jerry Steuermagel (612) 624-5391

## Q&A

**WHO WOULD BE ON MY TEAM?** You decide that with the help of your regional representative. Teams often include dairy extension educators, veterinarians, and farm business management experts.

**WHY IS THIS ANY BETTER THAN THE ADVICE I'M ALREADY GETTING?** It's the difference between a jigsaw puzzle still in the box and one that's put together. Each dairy professional has a unique angle from which he or she sees your farm. But no single person has the complete picture. As a team, these specialists can consolidate their expertise into a single, coordinated effort to improve your farm.

**WHAT WILL IT COST ME?** Depending on which project you're involved in, the cost will range from \$145 to \$200.

**DO I HAVE TO SHOW THEM EVERYTHING?** No. You make the decision on what you are comfortable sharing with the team.

**ISN'T IT A LITTLE EMBARRASSING TO HAVE ALL THESE OUTSIDERS LOOKING FOR YOUR WEAK SPOTS?** If you tend to keep your business matters to yourself, it might seem a bit different at first. But remember that their goal is not to make you look bad, but to help you improve. Also, team members are committed to adhering to strict confidentiality.

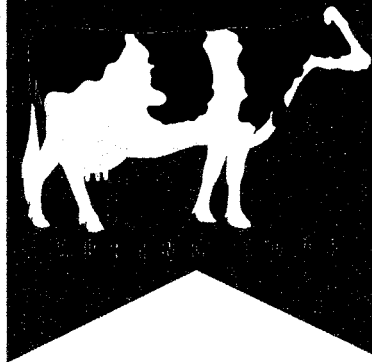
**WHAT IF I'M HAPPY WITH MY FARM THE WAY IT IS?** You can still benefit from a dairy diagnostic team. Participants with very nicely run operations have used this program to fine-tune their plans and get outside perspectives. No matter your circumstances, you can still see positive changes by using a diagnostic team.

"When you work with your dairy herd every day, it's easy to lose sight of the little things that can make a big difference in production, herd health, and ultimately the bottom line. [The program] helps us to identify these areas and then further suggests ways to correct/accomplish the desired end result. [It] also allows us to use the specialized expertise of each of the team members for each area of our operation. . . . It's a real asset to have top-notch people to refer to when new/difficult situations arise."

—Dairy Diagnostic Team program participant

## MINNESOTA DAIRY LEADERS

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



### Diagnostic teams show immediate benefits on Minnesota dairy farms

Since its inception in 1997, the state-funded initiative promoted by the Dairy Leaders Roundtable to encourage production improvements on Minnesota dairy farms has been gaining widespread and rapid acceptance.

Reporting on the program at the March 1998 Dairy Leaders Roundtable meeting Katie Kulesa said more than 80 farms are currently participating and a goal of nearly 700 participating farms has been set for June 1999.

Early results show the benefits of producers working with diagnostic teams are very favorable. Kulesa noted that producers gave the program and their team members high marks and strongly encouraged the continuation – and broader use – of dairy expert assistance on Minnesota farms.

Comments from participating producers range from a very concise, "The program is a good one and we need to keep it going," to others who

have endorsed the program more extensively. "We know all farmers need an incredibly diverse knowledge base in order to function, but it's a real asset to have top notch

*The bottom line is that we all – team and farm family – have a vested interest in making the dairy operation a success. When we do well, so does everyone we work with."*

people to refer to when new/difficult situations arise. The team is literally part of the operation. We have regular meetings that keep all up-to-date on farm happenings, and especially help us stay focused on our goals and accomplishing

them in a timely manner. The bottom line is that we all – team and farm family – have a vested interest in making the dairy operation a success. When we do well, so does everyone we work with."

Another producer had this to say about the program: "The program has given us a new perspective on farming. We had a large calf loss and the team suggested we set-up a dry cow lot, remodel a corncrib to house baby calves and make changes in our feeding. As a result, calves are growing much better and loses have declined dramatically."

A producer also commented, "When we began on the program a team analyzed our farm situation. They informed us on our strengths and also our weaknesses. With the team's expertise, we are improving our weaknesses. We have set goals, both short-and long-range and are pleased with the changes."



## **New Zealand tour reveals U.S. must Wake-up or face "a world of hurt"**

**"N**o one talked about price or other controversies the entire time we were there," Minnesota Ag Commissioner Gene Hugoson said regarding a recent visit to review New Zealand's dairy industry.

Hugoson kicked-off a panel discussion at the Roundtable meeting following a tour of New Zealand earlier this year. He said he was struck by the New Zealand producer's intense focus on marketing. They have 14,000 producers with an average of 200 cows per farm – and they think and talk about marketing every day. About 95% of New Zealand's milk production is exported, with only 5% being used domestically (almost exactly opposite the U.S.). Hugoson said the New Zealand Dairy Board employs 7,000 people (one for every two producers in the country) and this board oversees the marketing of dairy products.

"It's the belief of the New Zealanders we talked with that within the next few years there will be just four or five large conglomerates marketing dairy products in the world – and they plan on being one of them," said Hugoson. He said it was his belief that the U.S. dairy industry needs to become much more aware of what

others – like New Zealand – are doing to market dairy products worldwide. "If we don't, we're going to be in a world of hurt." With less than 3 percent of the world's milk production, New Zealand is now responsible for 25% of the world's dairy exports.

Other panel members discussing their New Zealand tour had similar comments to make. Producer Lyle Tjosaas said "Quality is everything to the New Zealand producer – and there is a deduct for high cell counts." He noted that more than 25% of New Zealand's gross domestic product is related to the dairy industry.

Don Berg, Land O'Lakes, said one of the bigger worries for New Zealanders was the concern that if, "the U.S. ever gets it act together, they will take market share away from them."

Hugoson and Berg both noted the strongly positive attitude among New Zealand producers and their focus on the future.

Reflecting on the New Zealand tour, Paul Hansen from the Minnesota Department of Trade and Economic Development said, "They are very intense about their desire to be the best in the world," and there are valuable things we can learn from them.

Hansen went on to discuss a planned trade tour to New Zealand in November.

*(See accompanying story.)*

## **Production per cow increases while cow numbers decline**

**C**urrent milk production information was presented to members attending the late winter meeting of the Dairy Leaders Roundtable by Jim Gryniewski of the Minnesota Department of Agriculture.

He reported average per farm production in January 1998 was 82,379 pounds, the highest its been in more than two years. At the same time, the average number of cows on a Minnesota farm has risen to 60, while the total number of cows in the state has declined to 570,000 from a level of 600,000 in September 1996.

Dairy leaders also saw figures showing the total number of dairy farms in the state continues to decline and now is just above 9,300. The state continues to be the nation's fifth largest in milk production, however in 1997 Minnesota's percent share of total U.S. production fell below 6% for the first time in modern history.

## **Dairy trade tour to New Zealand set for November 1998**

**A** one-week tour (that can be extended to two weeks) of New Zealand's dairy industry to be led by Minnesota Ag Commissioner Gene Hugoson is scheduled for mid-November.

The tour, which is open to any individual in the state who has an interest in the dairy industry, will include a number farm visits, plant tours, meetings with ag officials and discussions with other industry leaders.

Departure from Minneapolis is set for November 13 – returning on November 21.

Interested individuals should contact KITT travel 612 854-5589 for further information about the State of Minnesota Dairy Trade Tour to New Zealand.

## Minnesota's Dairy Labor Training Program

### Dairy farm training programs provide career opportunities

The importance of and need for trained labor to work on Minnesota's dairy farms was discussed by Harold Stanislawski from the Minnesota Department of Agriculture and Ron Tobken, of Little Pine Dairy, in a presentation to the Dairy Leaders Roundtable.

The discussion focused on a program funded by the Minnesota Job Skills Partnership. Training courses, both in the classroom and on farms, are being run in various locations throughout the state.

As Stanislawski and Tobken pointed out, success-

ful and rewarding dairy careers are available in Minnesota – with many dairy businesses actively searching for trained and qualified individuals. The training program follows six career paths and requires a set of skills to be acquired. The programs are designed to train General Managers, Head Herdspersons, Assistant Herdspersons, Lead Milkers, Feed Technicians and Milking Technicians. "If we want young people to get into dairying we need to show them what opportunities exist," said Stanislawski.

Tobken said he believes that a trained labor force is one of the critical keys to increasing milk production in Minnesota. He sees both short-term and long-term goals for building the dairy industry through job training. On a short-term basis, "we need people now who can take on responsibilities on dairy farms and help everyone achieve a better quality of life. Longer term, "we need to focus on dairying as a good career choice in our high schools so that we develop interest and a pool of trained individuals for the long haul."

### Seven new organizations join dairy leaders structure

Early in 1998 seven new organizations became part of the Minnesota Dairy Leaders Roundtable structure – repre-

senting the multi-faceted aspects of the state's industry.

*New to the Roundtable are:*

- Dairy Federation of Minnesota
- Minnesota/South Dakota Dairy Foods Research Center
- Minnesota Dairy Producer Board
- Cottington/Marti, Inc.
- Dairy Producer's Finance and Management Assn.
- Minnesota Sanitarian's Association, Inc.
- Minnesota Foundation for Responsible Animal Care

These seven organizations join 32 other dairy related organizations who have joined together in a united effort to "strengthen the competitiveness, profitability and social vitality of Minnesota's dairy sector.

### Producer urges industry to 'use power of teamwork'

"Use the power of teamwork," urged Mel Kunstleban, a member of the Dairy Leaders Roundtable and dairy producer, as he led off 1998's 1st quarter meeting of the Roundtable.

Kunstleban reviewed accomplishments of the roundtable since its inception in 1992 and noted the work still to be done to continue to move the industry forward. He called for greater unity throughout the industry and urged everyone to keep a positive attitude and be open to making the changes necessary to be successful in the future.

## EDUCATION PROPOSAL NOT SUPPORTED

A broad-based effort on the part of the Roundtable to secure funding for a variety of dairy producer education programs will not receive state funding, reports Allen Gerber, head of the Roundtable's legislative coalition.

The Roundtable had sought up to \$1.2 million to fund educational materials for on-farm programs focused at serving the middle one-third of the state's producers based on profitability.

"Although a number of people worked very hard to secure funding for these programs and many in the legislature were supportive of our efforts, when the session ended late in May the funds weren't there," said Gerber.

The Roundtable will review the priority and needs of the state's dairy industry and later formulate its legislative efforts for 1999.

## 1999 DAIRY EVENT SET FOR FEBRUARY

Plans for a coordinated statewide event that would enable dairy producers to attend multiple organizational annual meetings, education seminars, and an industry trade show are moving forward and tentatively set for February 23-24, 1999 at the Kelly Inn in St. Cloud.

The event is meant to bring together producers and dairy related businesses from throughout the state in one location for the purpose of conducting and participating in a variety of events.

Among the activities being planned are:

- Annual meetings – Multiple two hour blocks of time will be scheduled throughout the two-day period to facilitate annual meetings of various dairy organizations.
- Educational seminars – Seminars on timely dairy topics will be scheduled over the two-day period.
- Dairy Industry Banquet – A dinner is planned for Tuesday evening that will include a keynote speaker discussing the critical issues facing the industry.

Individuals and organizations interested in participating in the event and/or holding a meeting in coordination with the event should contact: Dan Little, Minnesota Dairy Event chair, 800 937-8387.

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If you have questions about regulations, permits or other dairy development issues you can get advice toll-free from an Agriculture Department Specialist, Minnesota Department of Agriculture by calling

**1 800 967-AGRI (2474)**

## Calendar of Events

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

### M A Y

5/19-21 Minnesota Dairy Health Conference, Earle Brown Center, U of MN, St. Paul. Contact: Chuck Casey 612-624-1711

### J U N E

6/22 Dairy Leaders Round Table Meeting, Sheraton Midway, St. Paul, MN. Contact: Ed Frederick 507-835-3422

6/23&24 Professional Dairy Management Seminar, Dubuque Five Flags Center, Dubuque, IA. Contact: Lee Kilmer 515-294-2116

6/23-25 In-state Dairy Tour: Central Minnesota. Contact: Lee Raeth or Dave Weinand 612-682-7394

### J U L Y

7/11 American Society of Ag Engineers Dairy Tour, Orlando, Florida. Contact: ASAE 800-371-2723

7/12 Dairy Facilities Design For Designers, Orlando, Florida. Contact: ASAE 800-371-2723

### A U G U S T / S E P T E M B E R

8/17&18 Midwest Dairy Management Conference, Minneapolis Convention Center, Minneapolis, MN. Contact: Joe Conlin 612-624-7497

8/18&19 Minnesota Alfalfa & Forage Expo, Ron & Marvin Miller Farm, Little Falls, MN. Contact: Betty Schiefelbein 612-436-3930

8/27-9/7 Moo Booth, Minnesota State Fair, St. Paul, MN. Contact: Doris Mold 612-626-1277

9/21-23 Minnesota Nutrition Conference, Bloomington, MN. Contact: Leon Meger 612-625-1214

Changes or additions to the Minnesota Dairy Calendar may be directed to: Bonnie J. Rae, Department of Animal Science, U of MN Extension Service, 122 Peters Hall, 1404 Gortner Avenue, St. Paul, MN 55108-6164  
TELEPHONE: 612-624-4995 FAX: 612-625-1283

## 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."

### 1998 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*

Dave Peterson, *First District Association*

Dave Daeges, *Minnesota Bankers Association*

Daniel E. Little, *Minnesota Veterinary Medical Association*

Pat Irrthum, *Women Involved in Farm Economics*

Gene Hugoson, *Minnesota Department of Agriculture*

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

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

# Times, They Are A-Changing

## *Making decisions in a changing environment*

by SHARON DANES  
family economist

**C**hange is all around us these days, and the agricultural industry is no exception. Change has been affecting farm policy, farm technology, agribusiness structures, rural communities, and individual farm businesses. And change is here to stay as a regular and continuous part of life.

### **Reactive or Proactive?**

When changes occur, you can be either reactive or proactive. Being reactive means you let change happen and then you respond or adapt to it. You may see change as loss. Being proactive means you plan for change and are open to new or multiple ways of doing things. You see change as an opportunity.

In the long term, how you interact with change is the difference between surviving and thriving for your family business.

### **Characteristics of Change**

Some things occur regularly around change. One is that there will be pressure to keep things the way they are. When you change your operation, members of your family business or others in the community will question what you are doing. People naturally feel more comfortable when things remain the same.

Those who really want change are often impatient for it to begin and continue. However, planned change based on a goal is usually lasting change. Reduce the risks involved in a major change by taking time to consult professionals for information, to determine the financial costs and benefits of alternatives, and to discuss alternatives with family members whose time and money will be affected. Others will resist change less if they have participated in the change decision. Communication



also gives you a chance to work out inaccurate assumptions or motivations.

Disagreement and conflict also are a normal part of change. Sometimes a member of the younger generation needs to work away from the farm for awhile or investigate other alternatives to fully realize what it takes to begin farming. Sometimes members of the older generation need to consult professionals such as attorneys, counselors, agricultural educators, or consultants or other farmers to see alternatives that fit their needs and values as well as the needs and wants of the younger generation.

Change is often a process of three steps forward and one backward. Some dairy farm partnerships have taken three or four years to get an agreement together. You can reduce misunderstandings by writing down agreed-upon decisions about specific aspects of the partnership.

### **People Respond Differently To Change**

Whether you view change as a loss or an opportunity depends on what the change means to you. The more meaning a person places upon a change, the greater will be the sense of loss.

Two people can experience the same set of circumstances, but view them differently. Let's say that there are two

farmers who get hurt and can no longer milk. Both have a son or daughter interested in continuing in the business. Both view their injury and its impact on their business as a loss. Both deny the impact of their injury at first because they are fearful about what it means and confused about how to proceed. Then both become angry and irritable about their situation. These are normal stages of grief over things that we perceive as losses. Both experience the "blues" after awhile, but here is where they begin to differ.

One of the farmers views the injury as a loss of a way of life, becomes quite depressed, and can't seem to move on. The other feels pretty low for awhile but gets some help to talk about and find meaning in the situation. He begins to explore options and to see the situation as an opportunity to get his child more involved in the business at an earlier stage in life. He also begins to concen-

*Continued on page 8*

## Times They Are A-Changing

Continued from page 7

trate on diversifying the operation by creating a value-added product in which he can be involved despite his injury.

How you view a change influences how you communicate, make decisions, and solve problems as you deal with change. It also determines how quickly you progress through a normal series of adjustments like those just described.

### Management Types and Change

A researcher studying a group of farm families who had experienced financial difficulties discovered two underlying management types. One type was described as Yeoman families and the other as Entrepreneur families.

The charts at right shows how the two types differ in their farm goals, management strategies, family characteristics, local community impacts, and response to various questions. It's clear that management type affects the meaning farmers give to change in their lives.

The description of the types does not indicate a right or wrong way to interact with change, but rather an acknowledgment that more than one model exists. However, for your business to thrive in the future, some of the more entrepreneurial management characteristics will have to drive your decision making: thinking of farming as a business compared to a "way of life"; keeping up with new information in the industry; taking some calculated risks to keep your business competitive; developing some new ways of thinking. Family tradition may not be able to drive decisions anymore. You may need to consider alternatives to keep the business viable or provide an

adequate level of living for your family.

### Planning for Change

For businesses to thrive in a world of change, they must include several essential considerations in their business planning.

*Accept ambiguity.* A certain amount of ambiguity is an essential part of the planning process. There are few black and white situations or right or wrong answers. There are many ways to do business.

What is right for your family business may not be right for the business down the road. It depends on your goals, vision, and financial circumstances; on how your operation fits into the sur-

rounding economy and affects the surrounding environment; and on the impact of the global market on the local and state economy.

As an example, two similar dairy families chose different routes for their businesses. For both, the dairy animals, a comfortable level of living, and time with family were important. One couple chose to build a milking parlor and develop a partnership with a son and daughter-in-law. The other chose to sell their herd to a larger farm and work for that farm. Both maintained the connection with the animals, are living comfortably, and have more time with their families.

*Share information.* Both families in the example made a decision and carried it out over several years. They had multiple discussions with all affected members of the family business. One couple joined a discussion group of farmers who had made similar changes. The focus was on maintaining the viability of their businesses by sharing information and experiences.

*Make full use of the many people around you.* In the example, both families consulted several professionals for information and help in analyzing alternatives and making decisions. Even though there was disagreement and conflict while the plan was being worked out, there was time and energy for alternatives to be considered, space for emotions to surface and sometimes ease, and opportunity for compromises on all sides. In each case, the family used the strengths of all members, both male and female, in problem solving.

*Have a vision.* Both families had a vision of what they wanted for the future. That vision served as an invisible force that enabled family members to in one instance remodel their business, and in the other to design a new kind of life without direct ownership of the animals.

In summary, coping with change

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### Different Farm Family Goals and Their Consequences

YEOMAN FAMILIES	ENTREPRENEUR FAMILIES
<b>FARM GOALS</b>	
<b>Continuity of a viable farm and producing a family farmer</b>	<b>Manage a well-run business that produces profits</b>
<b>MANAGEMENT STRATEGY</b>	
<b>Expansion limited to family capabilities</b>	<b>Ambitious expansion limited by available capital</b>
<b>FAMILY CHARACTERISTICS</b>	
<b>Intergenerational cooperation</b>	<b>Intergenerational competition</b>
<b>Parents assume responsibility for setting up son/heir, and intergenerational transfers</b>	<b>Each generation must establish itself, and heirs are responsible for intergenerational transfers</b>
<b>Family members, including nonfarmers, live in community</b>	<b>Many family members leave farming and the community</b>
<b>LOCAL IMPLICATIONS</b>	
<b>Close-knit social networks</b>	<b>Loose-knit social networks</b>
<b>Strong attachment to church and village</b>	<b>Weak attachment to local church and village</b>
<b>Substantial commitment to community stability</b>	<b>Commitment lacking for community persistence</b>

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**Yeoman Farm Family Assessment Responses**

CHARACTERISTIC	AN INDIVIDUAL?	A FAMILY MEMBER?	A FARMER?	A COMMUNITY MEMBER?
<b>1. HOW WOULD YOU DESCRIBE YOURSELF, AS . . .</b>	Cooperative, rather than competitive	From a long line of farmers	Conservative	Close with neighbors, friends
	Slow to change time-tested ways	Responsible to family for actions	Steward of land, operation	Involved in local groups, causes
<b>2. WHAT ARE YOUR MAIN CONCERNS, AS . . .</b>	Loss of identity as farmer	Children not able to farm	Loss of operation	Opinions of others
	Guilt over failure	Loss of way of life	No commitment by successor	Forced to leave to find work
<b>3. WHAT WOULD YOU LIKE TO ACCOMPLISH IN THE NEXT FIVE YEARS, AS . . .</b>	Regain identity	Regain family operation	Get back into farming	Pay debts
	Regain self-respect	Plan next generation's succession	Be able to buy land	Stay in home community
<b>4. WHAT MATERIAL AND SOCIAL RESOURCES CAN YOU DRAW UPON TO COPE WITH YOUR CONCERNS AND ACCOMPLISH YOUR OBJECTIVES, AS . . .</b>	Commitment to teamwork	Shared commitment to family operation	Willingness to defer household needs for enterprise	Moral support
	Commitment to agriculture	In-kind financial assistance	Advice, experience of past generations	Shared equipment, labor services

.....  
**Is your family a Yeoman family or an Entrepreneur family? For your business to thrive, some of the more entrepreneurial traits will have to drive your decisions.**  
 .....

**Entrepreneur Farm Family Assessment Responses**

CHARACTERISTIC	AN INDIVIDUAL?	A FAMILY MEMBER?	A FARMER?	A COMMUNITY MEMBER?
<b>1. HOW WOULD YOU DESCRIBE YOURSELF, AS . . .</b>	Competitive	Independent	Businessman	Detached
	Risk-taker	Self-reliant	Up-to-date	Selective involvement based on personal preference
<b>2. WHAT ARE YOUR MAIN CONCERNS, AS . . .</b>	Personal failure	Maintaining standard of living	Loss of investment	Being beat out by someone else
	Dependence on others	Finding employment	Loss of income source	Being beholden to creditors
<b>3. WHAT WOULD YOU LIKE TO ACCOMPLISH IN THE NEXT FIVE YEARS, AS . . .</b>	Regain independence	Provide for wife, children	Able to expand	Move on to better financial opportunities
	Get a new start	Plan children's education	Have a decent income	Show others come-back
<b>4. WHAT MATERIAL AND SOCIAL RESOURCES CAN YOU DRAW UPON TO COPE WITH YOUR CONCERNS AND ACCOMPLISH YOUR OBJECTIVES, AS . . .</b>	Personal education, skills, abilities	Income from wife's job	Willingness to leverage	Refinance debt with local lenders
	Farming not only desirable occupation	Independence, self-reliance of children	Advice, guidance of agents, experts	Contacts to help find off-farm employment

means learning not only about technology, but also about people. Farm businesses that will thrive in the future are those that plan proactively around change by being open to new and/or multiple ways of doing things. 🐄

*Tables adapted by Sharon M. Danes, Professor, Family Social Science Department, University of Minnesota, from Davis-Brown, K., & Salamon, S. (1987). Farm families in crisis: An application of stress theory to farm family research. Family Relations 36: 368-73.*

# Johne's Disease

*Nail it before it nails you!*

It's sneaky, often lurking in a herd for a couple of years before cows begin to show any sign of being sick. It's highly contagious, spreading readily through manure. And it's costly: it can easily rob an infected 100-cow dairy of \$23,000 per year in reduced income and replacement animal costs.

It's Johne's disease, and if you don't have it yet, it's probably headed your way. Just 10 years ago, there were only 74 known infected cattle herds in Minnesota. Today more than 40 times as many farms are known to have it. If you want to keep Johne's from taking a toll on your farm, you've got to nail it before it nails you.

## What is Johne's disease?

Johne's (pronounced "yo-nees") disease is a digestive tract disorder caused by bacteria. It results in weight loss and diarrhea, reducing milk production and carcass quality.

Johne's is spread mainly through manure, although young animals can also get it before they are born or through colostrum from an infected cow. Calves under six months of age are the most susceptible.

Johne's disease is hard to control because the bacteria can live for months



John Bush © 1998

outside the host animal and because animals can carry and spread the disease for several years before they appear sick. For every cow in a herd with obvious signs of Johne's, probably 15 to 20 more are infected.

There is no treatment or cure for Johne's. The only way to fight it is to keep infected animals from spreading the disease.

## Prevention is key

If you don't have Johne's, keep it that way! Only bring in new stock from well-managed herds that have tested free of the disease. But remember that even that is no guarantee. Because the disease can spread from animals that appear healthy, get in the habit of keeping young animals away from the manure of adults and keeping manure and feed from touching each other.

## What if my herd has it?

The sooner you do something, the better. Because every farm is different, start by asking your veterinarian for advice. Chances are the plan you draw up will include this one-two-three management punch:

1) *Protect calves.* Alter your calf facilities to keep newborns and young calves away from manure, especially manure of known infected animals. Keep calving areas clean and remove calves immediately, before they begin to nurse. Feed milk replacer or colostrum from test-negative dams only. House young animals apart from older animals and don't let them come in contact with manure from adults.

2) *Protect other animals.* Assume that all animals have Johne's and that all manure is contaminated. Keep manure separate from feed and water. Don't use the same equipment to handle the two. Avoid walking through feed bunks. Keep animals out of drinking water. Don't spread manure on pasture that will be harvested the same season for grazing. Keep facilities as manure-free as possible.

3) *Test and cull.* If you suspect Johne's, test your whole herd and then cull infected animals. Contact your veterinarian or the Minnesota Veterinary Diagnostic Laboratory, 800-605-8787, for more information. 🐄

## Managing the Challenges of Expansion

Central Minnesota Dairy Tour for Producers

JUNE 23-25, 1998

An opportunity to get away is a treat for any family, but especially for a farm family. But it's not a trip to Hawaii, Australia, or Florida that excites most dairy producers. It's the chance to see other farms and visit with other producers as part of their efforts to increase their own management capabilities and their operations.

This year's in-state dairy tour, "Managing the Challenges of Expansion," is an excellent way to explore options for a dairy expansion. There will be opportunities to meet with other producers, learn management as-

pects through breakfast workshops, and talk with legislators about aspects that affect your operation.

In the past, after touring different facilities, many producers have decided to learn more rather than expand immediately. Others have scrapped their plans and decided to get better before getting bigger. No matter what your decision is, you will benefit from perspective offered by this tour. To learn more about how you can participate in this year's tour, contact Lee Raeth at 612-682-7394. —David Weinand, extension educator

# Pricing Homegrown Forages and Feeds

by JIM LINN  
extension dairy specialist

If you want to accurately assess the profitability of your operation, you need to know the market value—not just the production cost—of the forages and feeds you grow. There are several ways to do this. Which method you use depends on how accurate you want to be and how much time you wish to put into your calculations.

## Legume-Grass Forages

*Method 1: Hay Auction.* It doesn't get much easier than this. Just use the selling price of auction hay that matches the quality of your hay. To price haylage, adjust the hay price for the dry matter content of the haylage. The quick adjustment is hay price times DM equals haylage price as fed.

*Method 2: RFV Rule of Thumb.* For this method, use the relative feed value (RFV) and percent dry matter (% DM) as follows:

$$\$/\text{ton as fed} = (\$/\text{ton of DM}) \times (\% \text{DM}/100) \text{ where} \\ \$/\text{ton of DM} = \text{RFV} - 26$$

For example, haylage at 152 RFV and 50% DM would be valued at \$63/ton.

## *Method 3: Energy-Protein-Fiber.*

This method uses prices of corn, soybean meal, and grade 2 (103–124 RFV) hay to calculate the value of hay of grades other than grade 2 at 89% DM. Use a different formula for each grade of hay as follows:

**Prime (above 150 RFV):**  

$$\$/\text{ton} = (0.191 \times S) + (0.057 \times C) + (0.742 \times H)$$
**Grade 1 (RFV 125-150):**  

$$\$/\text{ton} = (0.045 \times S) + (0.067 \times C) + (0.879 \times H)$$
**Grade 3 (RFV 87-102):**  

$$\$/\text{ton} = (-0.071 \times S) - (0.08 \times C) + (1.146 \times H)$$

Where S = price of soybean meal (44%), C = price of corn, and H = price of grade

2 hay (103-124 RFV), all in \$/ton.

## Corn Silage

*Method 1: Rule of Thumb.* To calculate the price of corn silage using the rule-of-thumb method:

$$\$/\text{ton (35\% DM)} = 10 \times \$/\text{bushel}$$

*Method 2: Energy-Protein-Fiber.* To calculate the price of corn silage based on energy, protein, and fiber:

$$\$/\text{ton (35\% DM)} = (0.19 \times C) - (0.059 \times S) + (0.263 \times H)$$

Where S = price of soybean meal (44%), C = price of corn, and H = price of hay, all in \$/ton.

*Method 3: Energy-Protein.* To calculate the price of corn silage based on energy and protein:

$$\$/\text{ton (35\% DM)} = (0.265 \times C) - (0.11 \times S)$$

Where S = price of soybean meal (44%) and C = price of corn in \$/ton.

# Improving Your Job Skills

## Minnesota's Dairy Labor Training Program

by LEE GROSS  
extension educator—finance and business management

Dairy farming is an increasingly complex and specialized business. Whether you are managing your own farm or moving toward a career as part of a larger dairy production team, you can benefit from expanding your knowledge and skills.

Minnesota's new Dairy Labor Training Program will help meet your need for advanced education in dairy-related careers. The program is designed to help provide farm owners, managers, and employees with the latest dairy management information. It can also help you prepare for a variety of careers, including general manager, herdsman, lead milker, feed technician, and milking technician. Topics include:

*Personnel Management.* Includes communications, conflict resolution, training, personnel policies, and operating procedures. These skills are critical for farm family members, employers, and employees.

*Business Management.* Includes finances, computers, cost control, and herd replacement budgeting.

*Animal Management.* Includes nutrition, preventive health, AI, reproduction, milking procedure, and start-up policies and procedures.

*Facility Management.* Includes facility maintenance, the milking operation, and equipment maintenance and repair.

Instructors are from the University of Minnesota, technical and community colleges, dairy farms, and industry. Classes are offered at various locations throughout the state. Most classes include both on-farm and classroom time. Most classes are also structured to allow attendance between morning and evening milkings. Class charges are from \$35 to \$200 depending on the length. Classes run from one to six days, with no more than one class session per week. For more information contact: Harold Stanislawski, Minnesota Department of Agriculture, 218-739-7632; Lee Gross, University of Minnesota Extension Service, 800-450-6171; or Julie Joplin, Ridgewater College, 800-722-1151.

*The Minnesota Dairy Management Training Program is a partnership of the Minnesota Job Skills Partnership, University of Minnesota Extension Service, Ridgewater College, Minnesota Department of Agriculture, and Fergus Falls Community College.*



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# DAIRY Initiatives

Volume 7 Issue 1 Spring 2008

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