

UNIVERSITY OF MINNESOTA
DAIRY

Initiatives



N E W S L E T T E R

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DOCUMENTS

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Getting Started With a Computer

Is your farm ready for a computer? If you'd like to keep better records and have them do more for you . . . turn the year-end scramble into a quick summary of organized and useful data . . . feel like you're running your operation instead of vice versa . . . the answer could be "yes."

A computer can do many things. It can help you with your financial data. It can make herd records more accurate and easier to use. It can assist you in making smarter management decisions. It can even let you share ideas with other producers around the world.

"If you're not keeping records now, it's not going to do it for you," says extension farm management specialist Earl Fuller. "But if you are, it won't take any longer, and you'll get a lot more out of it in terms of the ability to sort and use the results."

"A computer will keep track of all transactions and farm business," says Sheldon Erickson, a Roseau County specialized dairy extension educator who has helped many farmers computerize. "It may only take an hour or less each day to enter everything done that day. At the end of the year, you will be so proud. All bank work is done and you can enjoy the holiday with your family."

If you're ready to take the computer plunge, here's how:



1. Decide What You Want It To Do.

When you buy farm equipment, you start with a need you want filled. When you buy a computer, the same is true.

Decide before you shop what you want the machine to do for you. Then you will know how much

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Making Time

THE MAIN REASON that more dairy producers don't have computers is not money, but time. It takes time to choose and use a computer. Who can afford the time?

Think of buying a computer like planting a field. You have little to show for your efforts at first. But come fall, you know it was worth it. In the same way, buying and learning to use a computer is an investment in the future. It takes some effort to start. But when you start to reap the benefits, chances are your only regret will be that you didn't begin sooner.

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

Getting Started With a Computer

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memory and what kinds of equipment (hardware) you need. You may wish to buy a little more computer than you need right away so that you can try different applications later.

Some things a computer can help you do:

- **Maintain financial records**
- **Prepare tax reports**
- **Make year-end tax management decisions**
- **Make management decisions such as changing rations or financing a flat parlor**
- **Track the history of your fields**
- **Keep dairy herd records to better control your operation**
- **Help with correspondence**
- **File and access knowledge**

2. Gather Advice.

Nobody knows the advantages and disadvantages of specific computers or software more than someone who's been using them. Talk to other farmers. Talk to the computer expert at your kids' school. Talk to sales people.

But keep in mind, Fuller warns, that buying a computer is a lot like buying a car. There are lots of options on the market, and not all have to do with how well the machine will meet your needs. Be careful not to get talked into a bunch of bells and whistles you don't need.

Fuller recommends an IBM-compatible (MS DOS) system with a color monitor (screen), a good warranty, and at least 8K of memory. He also suggests you get a CD-ROM drive, since there is a lot of software both for the farm and for the kids that is coming out in this format. And a modem is a must if you plan to use the Internet.

As far as the brand goes, "there's more difference in price than there is in value," Fuller says. "Nationally advertised brand names do not have additional value over less advertised brands."

3. Shop Around.

You can buy a computer anywhere from the local dealer to computer megastores. Fuller recommends mail order for the best price. But he also admits there's an advantage to buying local because you have someone to turn to if you run into a glitch or need help to get going.

In some areas you can hire a consultant to evaluate your needs, put together a system, and get it up and running for you. This will cost you, but it might be worth it to know you're doing it right. It can save a lot of shopping, and the consultant might be able to get a better deal wholesale, anyway. How to find someone like this? Fuller suggests you start by checking the classified ads in the newspaper and talking with other farmers.

4. Choose Software.

Once you have a computer, you'll need software—the programs that allow that machine to put its energy to good use for your farm.

To keep track of your farm's finances, Fuller suggests a financial program such as Quicken (See Fall 1994 *Dairy Initiatives Newsletter*). He also recommends a multipurpose software package that includes a word processor, database, and spreadsheet.

You also can buy software designed specifically for keeping dairy records. A good program becomes the base for a control system.

"DHIA information will fit directly in your computer if you have Dairy Comp 305 software," Erickson says. "And there may be other software programs like DairyCHAMP [developed by the University of Minnesota] that will do all the things you want to get out of a computer."

In addition to these basics, the Dairy Initiatives Program offers a variety of software tools for on-farm use. Contact your specialized dairy extension educator (see telephone numbers at the back of this newsletter) for more information.

5. Learn the Ropes.

You have a computer. Now how do you figure out how to use it?

You can learn much from the manuals that come with the computer and software. If you feel

Looking Ahead

IN THE FAST-PACED world of computers, there's always something new coming down the pike. This year, for example, manufacturers are expected to introduce a bigger-than-ever microprocessor. And a new version of Microsoft Windows is also due out.

Does that mean you should wait to buy? That's up to you. But keep in mind that if you wait for the market to settle down, you will be a very, very old person before you buy a computer. If what you can get now will do what you need it to do, there's little reason to hold off for something "bigger and better."

like you need additional help, check your community high school or adult education program for classes. And don't forget the kids—they've probably been using computers at school all along.

6. Be Patient.

Last but not least, be patient with yourself. You don't need to computerize everything all at once to make your purchase worthwhile. Start by getting your finances (or whatever is most important to you) up and running. Add other things as you feel comfortable.

But beware: Once you discover for yourself the power of adding a computer to your farm management team, there'll be no end to what you'll want to ask it to do for you—and probably no end to what it's willing to do for you, either. 🐄

Advice for New Users

By **SHELDON ERICKSON**

Specialized Dairy Extension Educator, Roseau County

MOST PEOPLE WHO grew up before seeing their first TV have a gut feeling they want nothing to do with computers. The following hints may help you through this maze of wonderment:

- **If you have sons, daughters, or grandchildren, they can be a real asset in helping you to understand this piece of machinery.**
- **Using a computer is just like developing a good marriage. It takes time, patience, willingness to learn, and a desire to try to improve each day.**
- **Have your family help choose the computer, since all members may be using it.**
- **Have the right attitude. As you start off into a world you know very little about, think of it as a mid-life adventure.**
- **After you use your new computer for the first time, you may get so mad you will throw your hands into the air in disgust. When you're done with that, just sit back, relax, and have fun. You are not going to hurt the computer. It will tell you when you are wrong.**
- **Try to use the computer a little each day until you get the hang of it. Don't get frustrated and just walk away. The computer can be your best friend.**
- **The printout sheets can be real helpful when trying to make year-end decisions and for tax preparation.**
- **Shop around (with a conservative person) for what you really need—both in hardware and software. You don't have to spend a lot of money on software programs. Many are under \$100 and will work fine.**

Good luck with your adventure into the world of computers!

“It Isn't As Scary
As I Thought It Would Be”

Think a computer is too intimidating? So did Roger Walter, a Plummer, Minn., dairy farmer who runs a 150-head operation with his brother, Ray.

Walter says he probably never would have given a computer a chance on his farm if it weren't for his kids. But they were using computers in school, and he thought it would help them to have one at home, too. And once it was there, it only made sense to try it himself.

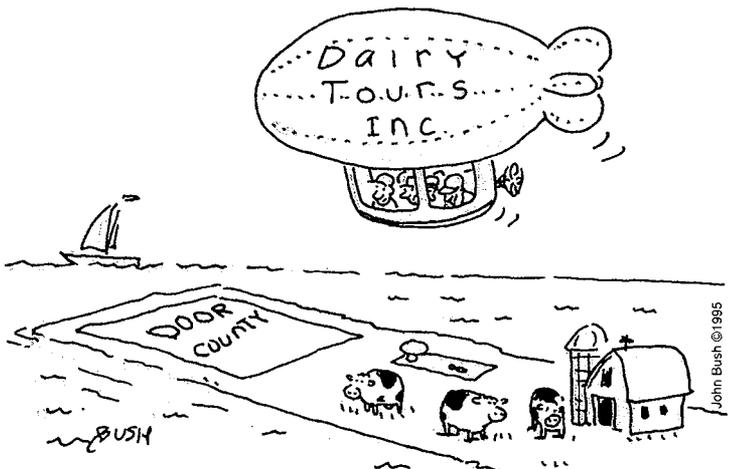
“At first I was scared of it,” Walter says. “Then I slowly got into it.”

That was a year or so ago. Today he's learning how to use the machine to balance rations. And once he has that down, he plans to try some other applications, too, such as cost analysis on crops and keeping herd records—“but I want to see if I master rations first,” he says.

When Walter bought the computer (he had help choosing a model from his brother-in-law, who is a programmer) he had planned to take one of the classes for adults offered at the local high school. But with just a little jump-start from his children, he soon felt comfortable enough to go it on his own.

Despite his initial hesitation, Walter has no trouble encouraging other dairy farmers to enter the computer age. He says his newfound knowledge not only gives him a boost with farm management, it also helps him understand the advice he gets from nutritionists and others who rely extensively on computers in their work.

“It isn't as scary as I thought it would be,” he says. “There's a lot of buttons there, but you really don't push as many as you thought.” 🐄



Wisconsin Dairy Tour

Reserve your place now for a power-packed tour to 13 northeastern Wisconsin dairies August 2-8. Tour sites feature numerous ideas for herd management and expansion, including animal care and comfort-stall design, ventilation, and manure management. For more information call Gerald Wagner at 612-625-1978 or 800-367-5363.

John Bush ©1995

Diagnostic Team Can Show You the Way

Ever think you'd have it made if only you had a few "top advisors," experts in various aspects of farming who were willing to share their secrets with you?

Well, guess what? You do.

Every dairy farmer in Minnesota has at his or her fingertips a half dozen or more agricultural experts who can show the way to a more productive and profitable business. Your feed dealer, your veterinarian, the milk field representative . . . each has information and perspective that is of incredible value to your operation. The only thing missing is **teamwork**. And that's up to you. These people are more than willing to help you make a go of it. But you have to make the first move to get these pros working together for you.

Today, more and more dairy producers are making that move. They are inviting the ag professionals they work with to form a "board of directors" known as a Dairy Diagnostic Team. The team members then work together to assess the farm operation and identify specific areas the producer can focus on to make it more rewarding.

The concept first developed in Minnesota as part of the Dairy Initiatives Program. More than 40 producers around the state volunteered to become demonstration farms. Each got a thorough going-over by a diagnostic team, then made changes based on the team's recommendations. Most can demonstrate marked improvements in key production and profitability measures as result.

Big or small, stable or struggling, just about any farm can benefit from this process. So if you would like to increase the chances that you and your family will be able to stay in farming—and enjoy it—during the changing years ahead, consider forming a diagnostic team.

You'll need to be willing to cooperate and perhaps do some things differently than your dad or grandfather might have done them, but most likely you'll find the experience very worthwhile.

Why a Team?

You're already getting all kinds of advice from the ag professionals you work with. The problem is, it isn't coordinated. Each professional has his or her own corner of expertise, and none has the overall view of your farm operation and its goals. But if you round them all up into a team, you can create a level of knowledge and wisdom that is far greater than they could ever provide individually.

Will ag professionals want to participate? Chances are, yes. After all, if your business is doing well, so is theirs. So everybody benefits from finding ways to make your operation better.

Building Your Team

If you'd like to use a diagnostic team to improve your operation, extension educator Vern Oraskovich recommends the following:



1. IDENTIFY TEAM MEMBERS

A good team consists of you and your family along with six to eight ag professionals. Chances are you already have many of these names and numbers right by your phone. Typical team members are bankers, veterinarians, feed salespeople, extension educators, milk plant field people, vo-ag instructors, crop consultants, and AI representatives. Think about who you work well with, and who would work well together. Then invite these people to become part of your diagnostic team.

2. GET ORGANIZED

Start with a meeting at your place. Explain to team members how, by working together, they can help map a "farm improvement strategy" for your operation. Choose a leader and a note-taker. If you need help explaining what you're doing and why, ask your county extension office for a copy of the Dairy Initiatives fact sheet *Developing a Dairy Diagnostic Team*.

3. ASSESS YOUR FARM

Set aside a half day or so to tour your farm with the diagnostic team. This should be a time of intense questioning. Team members should look at all aspects of your operation, from your calving facilities to your ledger book. They should ask you what you're doing, why you're doing it that way, and what kind of results you're getting. The note-taker should write down the questions and answers for future reference.

4. SWOT

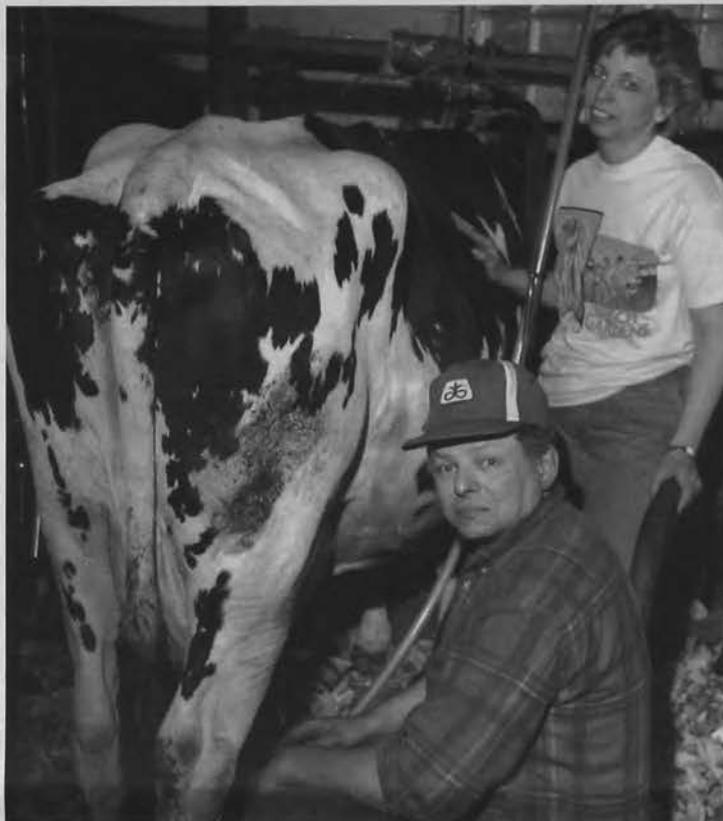
"SWOT" is a technique commonly used by big businesses in the process of planning for the future. It means looking at and *listing* the business's Strengths, Weaknesses, Opportunities, and Threats. Gather your team and use the notes from the farm tour to make a list under each category for your farm. From this list will evolve some solid ideas of what you can do to improve your operation. Identify two or three specific, short-term priority goals for your farm. Develop a plan of action. Then decide when you want to reach those goals, and how you will work toward them.

Remember that your family's goals are the number one issue here—not someone else's idea of what spells success. If you are a small operation and like it that way, nobody should be talking you into doubling your herd. But you can still find ways to improve your efficiency and profitability.

5. FOLLOW UP

After you and your team have decided where you want to go and what you can do to get there, the next step is to start moving. Schedule regular team meetings—every three to four months—when you can look at your progress and decide whether any adjustments need to be made in your plan. Those meetings are a great time to celebrate your milestones, too—and to set new goals as you achieve the ones you previously established. 🐄

Success Story



Don Breneman ©1995

FOR NANCY AND MIKE WANDERSEE, the difference between their farm operation before and after they sought and took the advice of a diagnostic team is like the difference between winter and summer. They have seen their production rise from 52 to 75 pounds per cow. Their calving interval is down from 14 to 12.7 months. The heifers are gaining better, and they're working their way toward getting them to calve at 24 months. Their SCC has dropped from 500,000 to 250,000 or less. And they're saving on feed costs, too.

"Before we were making it, but we just went from day to day," Mike says. "We're focused where we want to go now."

Before they invited the diagnostic team onto their farm, the Wandersees were doing things pretty much the way they always had, the way Mike's mom and dad had been doing them before that. At first, Mike says, the thought of baring their farm's soul to the team and making changes based on their suggestions was a bit tough. But looking back, he has no regrets.

"We've had a very good experience," Mike says. "I would recommend it."

Mike's main advice for people interested in forming a diagnostic team is to choose the members carefully. "You have to trust these people," he says. "They're going to tell you things you don't necessarily agree with." But, he adds, "it's constructive criticism. They're not going to beat you into the ground." 🐄

Choosing a Cost-Competitive Milking System

JOHN P. CHASTAIN, *Extension Agricultural Engineer*

Many producers who are trying to increase their labor efficiency and profitability are thinking about switching to a parlor-type milking system, which can milk up to twice as many cows per person per hour as a conventional stall barn. If that describes you, you're probably weighing a number of options, from converting your tie-stall barn into a flat parlor to building an entirely new milking center.

Which of the many options is best? That depends on many factors, including herd size, production level, stage in the transition from stall barn to free-stall housing, location and quality of the existing stall barn, your long-range business and personal goals, and economics. But the specific configuration of the system is not nearly as critical as is whether you can get enough milk out of it to justify the amount of money you put into it.

What Are the Choices?

The average person milking in a traditional stall barn with a pipeline and three milking machines can milk 20 to 25 cows per hour. Any type of parlor system can raise that to 35 to 55 cows per person per hour or more.

Dairy producers considering changes in milking systems have a number of alternatives. Among them:

- walk-in/back-out flat parlor
- walk-through flat parlor
- used pit parlor in remodeled stall barn
- new pit parlor in remodeled stall barn
- homemade or New Zealand-style pit parlor (remodeled or new building)

What's the Competition Spending?

Whether you plan to milk 60 or 600 cows, graze or feed TMR, the important question is, "What are the 'big boys' around the country paying to get the herd milked?" If you can meet or beat the milking center costs per hundredweight of a 1,000-cow dairy in California or Idaho, you'll not only be competitive, you'll actually earn more money per hundredweight.

But what are the milking center costs of the competition? To answer that, a cash-based partial budget was used to study the fixed and labor costs for a number of larger western dairies.¹ Fixed costs included principle and interest, taxes, insurance, and repair costs. The cost of the milking center was amortized over 10 years at 9.5%. Labor cost was based on an estimate of the total milking shift and an hourly wage plus

fringe benefits totaling \$9.89 per hour.

The results, shown in Table 1, are what you need to meet or beat to compete with these operations:

TABLE 1: *Milking center costs for typical large western herds.*

	Fixed Cost (per cwt)	Labor Cost (per cwt)	Total Cost (per cwt)
Average	\$0.60	\$0.69	\$1.29
Typical			
Range	\$0.51-\$0.68	\$0.55-\$0.83	\$1.13-\$1.45

So What Can I Spend?

You can use this information to help figure out how much you can spend on a milking center and still stay competitive in the national market. The relationship between fixed costs and capital invested is shown in Table 2. These costs include everything—the building, milking system, stalls, bulk tank, etc. By looking at Table 1 and Table 2 together, you can see that if the interest rate is 9.5 percent and the goal is to keep fixed costs at \$0.60/cwt, the parlor investment should not exceed \$2.65/cwt.

TABLE 2. *Variation in annual fixed costs with respect to milking center price for a 10-year loan period. (Shaded area corresponds to Table 1.)*

MILKING CENTER INVESTMENT (per cwt)	ANNUAL FIXED COST PER CWT (Includes principle, interest, taxes, insurance, and repairs)		
	8.5% interest	9.5% interest	10.5% interest
\$1.00	\$0.22	\$0.23	\$0.23
1.50	0.33	0.34	0.35
2.00	0.44	0.45	0.46
2.25	0.49	0.51	0.52
2.50	0.55	0.56	0.58
2.65	0.58	0.60	0.61
2.75	0.60	0.62	0.64
3.00	0.66	0.68	0.70
3.50	0.77	0.79	0.81
4.00	0.88	0.90	0.93
4.50	0.98	1.01	1.04
5.00	1.09	1.13	1.16

- new or used pit parlor in new milking center

Currently, many producers are using flat parlors to improve milking labor efficiency for herds of 40 to 240 cows. Pit parlors (herringbone, parallel, side opening, and home built) are being used for herds ranging from 120 to 700 cows. Some of these are used parlors installed in remodeled stall barns, and some are completely new milking centers.

¹ The dairies studied ranged in size from 372 to 1,300 cows. Operators typically milked twice a day, operated their parlors 16 to 24 hours per day, and had a herd average of 19,000 to 20,000 pounds per cow. Details of these and other calculations referred to in this article are provided in the Dairy Management Workshops reference notebook presented by the Dairy Initiatives group during Winter 1995. For further information contact Dairy Initiatives coordinator David Weinand at 612-625-9757.

MINNESOTA DAIRY LEADERS

More than three years ago, 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 vehicle for working together called the Dairy Leaders Roundtable. This newsletter highlights some of the accomplishments to date as well as ongoing projects and plans for the future.

Roundtable focuses on working together

Focused on the theme of "Working Together for a Shared Vision" organizations participating in the Minnesota Dairy Leaders Roundtable met June 19 in St. Paul to get updated on progress being made in Minnesota's dairy sector and hear reports on activities of the Roundtable.

A key feature of these regular meetings of the Roundtable has been a review of the status of Minnesota's dairy industry and comparisons with other portions of the U.S. The meeting also included recognition of new investors in Minnesota Dairy Partnership, Inc., the funding arm of the Roundtable.

Elton Redalen, retiring commissioner of the Minnesota Department of Agriculture and a strong support of the Roundtable was recognized at the meeting for his contributions.

Minnesota dairy industry featured in new video

Throughout June dairy month this year more than 1,000 community leaders across the state of Minnesota viewed a new video presentation developed by the Minnesota Dairy Promotion Council.

The 15-minute video highlights the history, economic importance and challenges facing Minnesota's dairy industry. The video was pre-

The 15-minute video highlights the history, economic importance and challenges facing Minnesota's dairy industry.

sented to a wide variety of community and civic groups in the top 50 dairy counties in the state. Local dairy leaders took the initiative to introduce and show the video and then often led discussions with community leaders on the importance of the dairy industry to the county.

Mike Kruger, who heads the American Dairy Association of Minnesota and is a participant on the Roundtable, said the video presents a serious look at the challenges facing Minnesota's dairy indus-

try and it also indicates what individual producers and the industry as a whole are doing to meet the challenges. "We used the video as information and education tool and also used it to call on community leaders to be supportive in helping rebuild our industry," said Kruger.

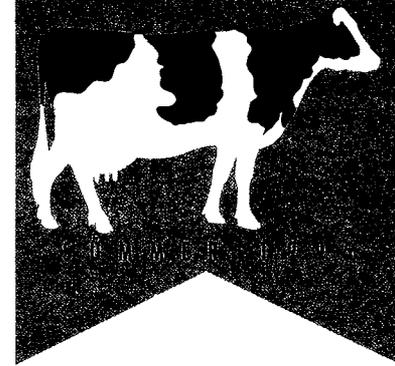
Copies of the video and a presentation kit to be used by individuals showing the video are available from the promo-

tion council for use at community meetings.

The planning kit includes:

- Outline of sample presentation
- 50 top dairy counties in the state
- Local community impact of dairy industry (in top 50 counties)
- Copy of video script
- Evaluation form

Contact Jon Gundale, Dairy Center, 612 488-0261 for video and planning kit.



County surveys show status of dairy industry

(Editor's note: The following article, which features the work of the Roundtable's Economic Development task force, was written by Carol Stender and is reprinted with permission from Agri News.)

A survey of more than 130 dairy producers in a two-county area has been dubbed the state's most successful business retention survey by a dairy task force.

Members of the Becker and Otter Tail County's Dairy Retention and Enhancement Task Force learned the survey results last week. (early May).

George Morse, an extension economist in community economic development, said the survey had a 97 percent response rate, greater than any other business survey he's worked with at the University of Minnesota.

But task force members didn't dwell on the accolades of the survey. It was a working session where the group discussed some of the key concepts raised in the survey and considered a course of action.

The group also learned that the number of dairy farms in the counties has been dwindling steadily — from 1,933 dairy farms in 1974 down to 602 this year. Becker County lost more than 200 dairy farms from 1974 to 1995. And the number of cheese plants in the area dropped from 845 in 1945 to 27 plants

today.

But there's also good news. At least half of the survey participants with larger operations plan to expand. Around a third of the medium-sized producers will add to their herd size.

"I was very encouraged by the number of responders who indicated that they will stay in the business," said Ken Herbranson, chairman of the task force and dairy producer from Clitheral. "It's not all gloom and doom. Many had plans for expansion."

"It's not all gloom and doom. Many had plans for expansion."

There were some survey results that became red-flag issues for the group to consider. Several producers said they had no time off and others stated they may get only one weekend away from the operation per month.

Other indicated a need for more business planning information. Labor shortages for those wanting milking assistance, management concerns and permit questions on manure handling were other concerns mentioned by producers.

Task force members also identified a need to enhance the local dairy farm and dairy infrastructure.

Otter Tail County is home to two processing plants — Mid Am in Fergus Falls and Land O'Lakes in Perham. Land O'Lakes receives capac-

ity milk volume, cooperative officials attending the meeting said. But the area needed to obtain the necessary supply has increased.

"There's more miles on the milk," said one official.

The local plants employ more than 200 people while statewide more than 39,000 people are employed by the processing facilities (dairy industry). The industry has a \$3.5 billion impact annually on the state.

If dairy producer numbers continue to decline and processing plants discover they have to travel further and further for their supply, it's feared that more plants will close. "The idea is to get more milk for the processors and keep the industry viable," said one task force member.

"If we can put our heads together, we can do something to change the trends," Herbranson said. "It is such an important industry not only in this milkshed but throughout Minnesota."

While the group identified their main concerns over the survey results at the meeting, they didn't develop a final course of action to deal with the issues. From the group's conception, task force members have realized there are some forces at play they can't change. Instead, they will address those they can, members said.

The task force is scheduled to meet later this month and will conduct community meetings in June.

Settlers established dairy

herds in the Midwest due to plentiful water supplies, land with limited alternatives to forage production, committed farm families and inexpensive high quality feeds said Joe Conlin, of the University of Minnesota. The industry has changed dramatically from those early stages. There's been a 90 percent decline in farms selling milk. Herd size has increased by a factor of 4.5 with production per cow increasing by a factor of three.

"It is such an important industry not only in this milkshed but throughout Minnesota."

The dairy industry represents half of Otter Tail County's income, Conlin said.

"When I think about this part of Otter Tail and Becker County, we are in the heart of the dairy belt," he said. "It has something to do with the dairy industry. It's mainstream Fergus Falls and Detroit Lakes and all the

other communities in the area. Because we have a tremendous ripple effect when you look at all the other industries like the plant in Perham. It adds a lot to the economic well-being of the area ... If you are going to make something happen (with these survey results) the most important thing is to believe.

"I am one of those people that if you find a good strategy and work together, you can make it happen."

Note:

The following chart represents a small portion of the information gathered from interviews conducted with 45 dairy producers in the east central Minnesota counties of Pine, Mille Lacs, Isanti, Chisago and Kanabec. The interviews were conducted by the Dairy Industry Business Retention and Enhancement Strategies program in cooperation with the Roundtable and reported to Roundtable participants.

CHALLENGES TO EXPANSION

CHALLENGE	% LIKELY
Insufficient land for manure disposal	5%
Problems with feedlot regulations	14%
Problems with odor complaints	10%
Difficulty managing employees required for expansion	43%
Development of a business plan	34%
Site planning and engineering	34%
Risk of capital investments for expansion	37%
Banks unwilling to finance expansion	35%
Difficulty recruiting labor	35%
Facility design	35%

Roundtable participants invest in dairy industry

In 1992, at the time of the formation of the Minnesota Dairy Leaders Roundtable, a goal was established to recapture and maintain 6.8% of the national market share. For 1994 the market share was 6% and trending down.

The Roundtable is a representative structure dedicated to working together and dependent on the leadership and commitment of every participating organization.

During 1993 and 1994, private industry has invested more than \$120,000 in cash to support partnership projects, such as the cost of this newsletter, through the Roundtable. These funds were supplied by dairy marketing organizations, dairy suppliers, dairy service companies, financial organizations and farm, trade and breed organizations. Further, in-kind contributions of staff and program funds have been invested in very diverse partnership projects.

In addition to the private investment of cash and in-kind services, a public investment of more than \$72,000 has been made over the past two years.

Funds invested through the Roundtable are accounted for and distributed through Minnesota Dairy Partnership, Inc. based on priorities established by the Roundtable. The Roundtable is now focused on fund raising activities among representative groups and organizations for the 1995 fiscal year.

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 1996.

ROUNDTABLE SUPPORTS PROGRAM TO CREATE DAIRY DIAGNOSTIC TEAMS

Earlier this year, the Roundtable approved a proposal to help fund a pilot program that will assist dairy producers in working with a diagnostic team to analyze their dairy operation.

The program, which will follow the teamwork model of the Dairy Initiative Demonstration Farms, will get its trial run on ten farms in Hennepin, Dakota, Scott and Carver counties.

The objective of the three-year program is to retain and enhance the economic viability of dairy producers through a process that links producers with an identified group of ag professionals who together would form a planning / consulting team focused on the future of that dairy farm.

Concept for the program was proposed by the Carver County Core Team in cooperation with the Carver County Extension Service. The program will be funded by the Roundtable, participating dairy producers and dairy marketing organizations. It is planned that the program become self sustaining after the second year.

It is hoped the program will demonstrate the value of using a diagnostic team approach in creating more viable dairy farm operations.

Additional program objectives include:

- Enhance the profitability of dairy operations, processing plants and agribusinesses in the community.
- Develop a positive attitude among producers and community members toward the dairy business.
- Retain agribusinesses in the targeted area.
- Teach the dairy diagnostic process to ag professionals and gain acceptance for the concept among dairy producers.
- Develop a model that could be used for dairy business retention and enhancement throughout the state.

Calendar of Events

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

JUNE

25-28 National American Dairy Science Association, Cornell University. Contact ADSA Business Office 217-356-3182

27-29 Instate Dairy Tour. Contact Vince Crary 218-563-2465

JULY

13-15 National Conference for Management Educations of Farm Audiences, Cornell University. Contact Karen Holcomb, 110 Morrison Hall Ithaca, NY 14853

14-15 State Show, Rochester, MN. Contact MN Holstein Assn, 612-259-0637

AUGUST

2-3 Wisconsin Nutrition Conference, LaCrosse, WI. Contact Randy Shaver 608-263-3491

2-8 Wisconsin Dairy Tour, Door County, WI. Contact Gerald Wagner, 612-625-1978, 1-800-367-5363

24-9/4 Minnesota State Fair-Moo Booth State Fair Grounds. Contact Doris Mold, 612-624-1519

SEPTEMBER

18-20 Minnesota Nutrition Conference, Bloomington, MN. Contact Leon Meger, 612-625-1214, 1-800-367-5363

18-20 State Minnesota Extension Service Conference, Rochester, MN.

26-28 Four-State In-Service Professional Development for Agents Locations to be determined. Contact Jim Linn An Sci Ext, U of MN, 612-624-6789

NOVEMBER

Expansion Conference-Minnesota

DECEMBER

12-14 Personal Workshop, LaCrosse, WI. Contact Joe Conlin 612-624-7497

FEBRUARY 1996

Australia, New Zealand Dairy Tour-28 Day tour. Contact Gerald Wagner 612-625-1978, 1-800-367-5363

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:

Rhonda 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*

Elton Redalen, *Minnesota Department of Agriculture*

Vern Smith, *Minnesota Bankers Association*

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



John Bush ©1995

MILKING CENTER WORKSHEET		
	EXAMPLE	YOUR DAIRY
1	Herd size	100 cows
2	Milk sold/cow/year (lb)	18,000
3	Total milk sold/year, cwt (line 1 x line 2)/100	18,000 cwt
4	Capital investment per cwt*	\$2.65
5	Maximum purchase price of the milking center (line 4 x line 3)	\$47,700

**This figure should be below \$3.00. The \$2.65 figure keeps fixed costs at \$0.60/cwt, the average calculated for western dairies.*

You can use the worksheet above to calculate how much you can pay for a milking center and still stay competitive. An example is shown for a 100-cow dairy.

After you've completed this worksheet you have an idea of how much is reasonable for you to spend on a milking center. Some of the possibilities for a 100-cow example are shown in Table 3. All of the flat parlor options are very cost competitive. Some low-cost pit parlors can also provide a good alternative.

However, even installing a pit parlor in your stall barn can cost more than \$3.00 per hundredweight. Make sure you get the total cost of any option before you make your decision.

The calculations shown in Table 3 can be made for any herd size using the worksheet. If you try a few numbers, you will see that with an automated flat parlor you can quite easily keep your milking center investment in the range of \$1.80 to \$2.40 per hundredweight for herd sizes ranging from 40 to 80 cows.

Keep Goals in Mind

BY COMBINING THE cost advantages of milking system alternatives such as the flat parlor with feed cost control measures, a small dairy can compete with large dairies. The real question is: What are your lifestyle and income goals, and does the herd size you are considering meet these goals?

Many Minnesota dairy producers are considering small-scale (up to 150 cows) and large-scale (200 cows and up) expansions in order to meet their financial goals and to allow them to spend more time with their families. If you're among them, be sure to first define your goals, then select a milking system and other facilities that allow you to meet those goals in the most profitable manner.

TABLE 3.
 Milking center costs and sample calculations for a 100-cow dairy with a herd average of 18,000 lb/cow.

Milking Center Type	Total Milking Center Cost*	Investment per Cwt	Fixed Cost per Cwt at 9.5% Interest
Double-8 walk-in/back-out flat parlor	\$18,000-\$36,000	\$1.00-\$2.00	\$0.23-\$0.45
Eight stall walk-through flat parlor	\$30,000-\$39,600	\$1.67-\$2.20	\$0.38-\$0.50
Used double-6 herringbone in a remodeled stall barn	\$40,000-\$60,000	\$2.22-\$3.33	\$0.50-\$0.75
Home-built double-6 parlor with a unit and take-off per stall	\$36,000-\$50,000	\$2.00-\$2.78	\$0.45-\$0.63
New double-3 side opening parlor in a remodeled stall barn	\$50,000-\$80,000	\$2.78-\$4.44	\$0.63-\$1.00

*total installed cost of the entire system.



Balancing Rations for the Average Herd

By JIM LINN, *Extension Dairy Nutritionist*

Most of the advice that's out there on dairy nutrition is aimed at high-producing herds—cows producing 90 to 100 pounds of milk per day or herds averaging 24,000 pounds a year or more. But what about the average cow?

The diet that's right for the top producers is not necessarily the best for the rest. If your cows are producing around the Minnesota average of 15,500 pounds per cow per year, or even around the DHI average of 18,000 pounds per year, you're not going to turn them into supercows with nutrition alone. In fact, feeding average cows fancy diets is pouring money down the drain. You can (and should, of course) work on genetics, disease control, and other variables to increase milk production. But in the meantime here's how you ought to feed:

Keep feed costs low. It should cost you less than \$5.00—preferably about \$4.00—per hundredweight to feed the average milking cow. That's approximately \$2.00 to \$2.50 per day. About 60 to 70 percent of this cost is forage and grain, which you probably grow yourself. The rest is purchased feeds such as protein supplements, minerals, vitamins, and other additives.

Keep forage quality high. Many producers could lower their feed costs and increase their production if they only paid attention to forage quality. It doesn't cost any more to harvest high quality forage—it's just a matter of following basic good practice when you plan, plant, harvest, and store. You can save a lot of money by changing your habits so you are harvesting 160 RFV alfalfa/grass rather than 100 RFV alfalfa/grass.

Keep track of what they're eating. This is the basic difference between an excellent nutrition program and all others. Weigh what you feed. You're losing money if you're guessing at how much cows are eating.

About 5 percent of the amount fed should be left in the bunk after 24 hours. And those leftovers should look the same as what you fed. If not, you're not full feeding cows so increase the amounts fed. Also, any buildup of wet, heated, or moldy feed decreases feed intake. Clean it out!

Provide good access to good feed. Be sure cows have access to feed at least 21 hours per day. Allow 24 to 36 inches of linear bunk space per cow (12 inches if a TMR is available at all times). Cows should never clean the bunk.

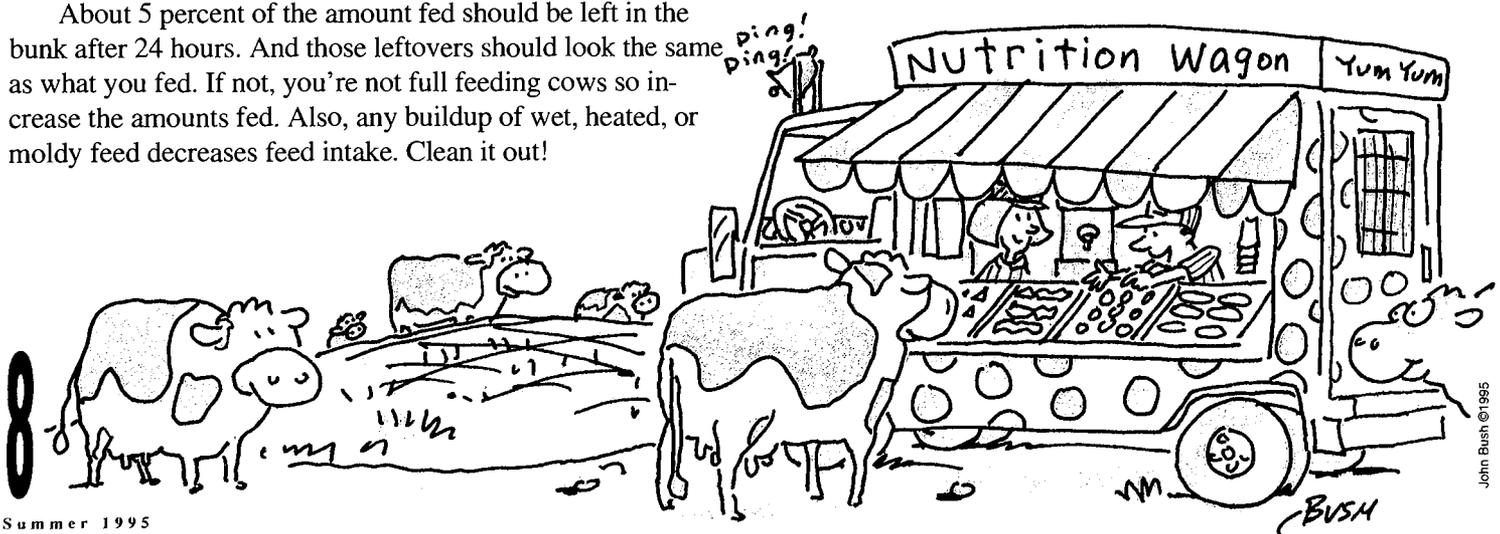
Avoid overbalancing the ration. It's not economical to balance a ration for milk production that's a lot higher than what you're actually getting. At most balance for 1.25 times the bulk tank (single ration) or group average. This will provide the nutrients needed by fresh and higher-producing cows without overfeeding the lower producers.

Take advantage of rumen fermentation. Encourage good rumen fermentation by making sure rations contain digestible fiber, starch, and amino acids. The best sources of these are high-quality forages (fiber), corn (starch) and soybean meal (amino acids). With good quality homegrown feeds, knowledge of how much cows are eating, and a balanced ration, the average cow can produce 65 to 70 pounds of milk per day with less than 50 cents per day of purchased feeds.

Bypass proteins should supplement good degradable protein sources, not replace them. Rumen bacteria need amino acids, peptide, and ammonia to grow. A deficiency in any of these will decrease carbohydrate fermentation and overall rumen fermentation.

Feed fat properly. Fat is an excellent source of energy. However, for the average herd, one pound of fat per cow per day from low-cost sources such as soybeans, cottonseeds, or sunflower seeds is more than enough. Adding fat to the ration will not make up for poor homegrown feeds.

Be conservative with feed additives. Feed additives are usually mineral or inorganic compounds that contain little or no energy. They can help support milk production, but they never make milk production. Ration costs go up fast when feed additives are used as an insurance factor or problem preventer. Energy, protein, and quality forages make milk. The average herd, fed a properly balanced ration, does not need many additives. ■



Hasselquists Find Flat Parlor Works for Them

BY DAVID WEINAND

FARM FACTS: Northbay Holsteins is an 85-cow dairy farm near Center City, Minnesota, run by Dwight and Ranae Hasselquist and their four children. Their rolling herd average is more than 24,000. With 112 acres of their own land and an additional 65 acres rented, they concentrate their crop efforts on forage and corn silage production and purchase most of their grains and high moisture corn. They feed cows a TMR, which allows them to easily change rations and feed as cheaply as they can.

SMART MOVES: In 1990 the Hasselquists converted a heifer shed to a freestall barn. The 120-foot long curtain-sided barn has a feed bunk on the south side and uses sand for bedding and Michigan loops to separate the stalls. In 1993 they converted their 35-stall barn into a double-8 flat parlor and holding area. During the conversion process they purchased two smaller herds to bring the total number of cows from 35 to 99.

The flat parlor platform is six inches higher than the rest of the parlor to decrease the number of times that the milker needs to bend down. Automatic takeoffs at each of the stations ensure that all the cows are milked the same regardless of who is milking. With the double-8 flat parlor, one person can milk 45 cows per hour and two people can milk 65.

The Hasselquists decided to change for two reasons, economics and family. "I wanted to continue to have time with my family and decrease the investment per cow," Dwight says. "We were able to do both by spreading the debt per cow over more cows and actually decrease the labor per cow. Doing this allowed us to bring another person onto the operation who can take some milkings and allow us some freedom, too."

FUTURE PLANS: The Hasselquists' plans include paying off intermediate debt, fine-tuning their management, adding a 100-cow freestall barn, and bring the cow numbers up to 200 to 250 while still using the flat barn. Dwight says that adding the next



David Weinand ©1995

The Hasselquists are making changes to gain more family time and reduce their per-cow investment.

100 cows will be a minor adjustment compared to the initial change from stall barn to a freestall barn.

ADVICE: Dwight recommends the move to a freestall and parlor as the "key to having farms compete into the next century" and accomplishing goals. "This would work on any farm that is open to change," he says. "You don't need anything fancy or nice. A three-row drive by feeding barn is the cheapest building to build."

If he were to do it again, Dwight says, he would buy only freestall cows or springers. They initially had to cull many of the stall cows because they were unable to adapt to the change. He notes that the first 12 to 18 months was pretty much a learning experience—learning to feed differently, track DMI (dry matter intake) better, do less hand labor, and be more of a manager. He recommended that producers making such a change travel to see other farms and get ideas from what other people are doing. He notes that their farm benefited from fee-for-hire financial assistance from their dairy cooperative and advice from the Minnesota Extension Service.

Another piece of advice Dwight offers is "don't try to be an expert in everything." For example, the Hasselquists now contract out their heifers at 70 days of age and buy them back when they are pregnant.

Dwight emphasized that it's important for farmers to take the initiative to remain competitive in today's changing environment. "The thing that will make the difference is your attitude. You must be proactive. You can't do anything about milk price, but you can control your cost of producing it." 🐄

"The thing that will make the difference is your attitude. You can't do anything about milk price, but you can control your cost of producing it."

—Dwight Hasselquist

Beyond the Bottom Line: Educational Opportunities in Dairy

Many young people who are born and raised on dairy farms are interested in a career in dairying, whether it be running the home farm, working for another operation, or contributing in some other way to Minnesota's dairy industry. Here's a brief overview of some of the programs around the state that provide the advanced training needed to succeed in today's increasingly complex and competitive world.

Hutchinson Technical College

Hutchinson Technical College's Dairy Management Program offers short-term educational experiences leading to a 50-credit diploma or 16-credit certificate. Students work on area farms in exchange for room, board, and a wage. Besides helping from a financial standpoint, this gives students a chance to apply what they learn to a real-farm situation.

To earn the 50-credit diploma, students attend school from the last week of August through the first week in May, then complete a 7-week internship. Emphasis is on hands-on learning featuring latest technology as well as speakers and demonstrations by industry representatives. Students gain practical experience in areas such as foot trimming, milking equipment evaluation, and cattle marketing in on-site farm labs. They also are exposed to a variety of management styles and farm sizes (from 30 to 700 head) on field trips throughout Minnesota and into Wisconsin. Most graduates return to their home farms, but an increasing number are choosing employment in larger dairy operations or in related areas of the dairy industry. Demand

for graduates greatly exceeds supply.

Hutchinson's new 16-credit program offers certificates in five specialty areas: herd health and AI management practitioner; milking technician; feeding and nutrition technician; dry cow, maternity, and calf-raising practitioner; and custom heifer raising practitioner. This option is ideal for those working in specialty positions on larger farms as well as anyone wishing to gain in-depth expertise in a particular aspect of dairying.

ESTIMATED COST: *Tuition, \$40/credit; about \$350 for books/supplies in the 50-credit program; free room and board and wage with part-time work on local dairy farm.*

FOR MORE INFORMATION: *Hutchinson Technical College, 2 Century Ave., Hutchinson, MN 55350; 800-222-4424 or 612-587-3636.*

University of Minnesota, Crookston

The University of Minnesota, Crookston, offers a two-year program leading to an associate of applied science (A.A.S.) degree in animal/dairy science

and a four-year program leading to a B.S. in animal industries management (dairy emphasis).

In both programs hands-on learning occurs through access to the Northwest Experiment Station's 100-plus cow dairy herd. Other features include personal laptop computers issued to each student, an interactive television link with the St. Paul campus, and use of the University of Manitoba dairy foods processing and quality control laboratory facilities.

Over the course of their education students visit 20 to 40 dairy farms and interact with numerous dairy industry professionals. In advanced courses they form a consulting team for a working farm. The Crookston program is considered particularly strong in the areas of nutrition and management.

Graduates of both programs are prepared for a wide variety of careers. About a third return to their own dairy operations. The remainder find employment in areas such as cooperative field work, nutrition, genetics, public relations, and farm management, or go on to graduate school. The demand for graduates exceeds the number of graduates.

Leadership and speaking skills are developed through extracurricular activities including an active Dairy Club. Students are given the opportunity to attend the World Dairy Expo and to compete in the Knowledge Bowl of the American Dairy Science Midwest Students Affiliate.

ESTIMATED COST: *\$60.80/credit (approximately \$2,736 per year); additional fees for student services, technology access, books and supplies, and room and board. Scholarships, work study, grants, and loans available.*

FOR MORE INFORMATION: *UMC Admissions, 4 Hill Hall, University of Minnesota, Crookston, MN 56716; 800-232-6466 or 218-281-8569.*

Careers in Dairy

FOR THOSE WHO would like a dairy-related career but don't plan to take over the family farm, today's dairy industry offers many options, either as a specialized employee of a larger operation or as part of the many businesses serving dairy farmers. Possible occupations include:

- AI technician**
- dairy cooperative field person**
- dairy equipment sales/service representative**
- on-farm nutrition consultant**
- DHI field representative**
- herdsman**
- feed salesperson**
- writer for industry magazine**
- veterinarian**



University of Minnesota, St. Paul

The St. Paul campus of the University of Minnesota offers several dairy-related majors, including animal and plant systems, agricultural industries and marketing, science in agriculture, agricultural business management, and agricultural education. Course requirements are flexible, so students can design their program to fit their chosen careers. Examples of courses in animal science specifically related to dairy include dairy judging, dairy management techniques, artificial insemination, milk production, dairy cattle genetics, ruminant nutrition, ration balancing, and dairy farm management. Class size ranges from 10 to 30 students.

Educational programs include hands-on active learning and field trips. A 90-cow dairy herd, located right on campus, is used for many of the courses. Students can earn money by working at the dairy barn, in other research units, or in labs on campus. Many students get involved with research projects of their own.

Many graduates of the St. Paul program find employment within the dairy

industry in areas such as feed sales, and work their way up into management positions. Others take positions with larger dairies. Still others choose to go on in veterinary or graduate school. There is high demand for persons graduating from this program, and motivated individuals generally have little trouble finding jobs.

There are many extracurricular activities available, including the dairy club, intercollegiate dairy judging, agricultural sororities and fraternities, and intramural sports. The St. Paul campus also offers a variety of other opportunities for academic and personal growth.

ESTIMATED COST: \$3,300 tuition/fees; additional expenses include room and board, books, and supplies. The program offers numerous scholarships as well as access to other financial assistance in the form of grants and work study positions.

FOR MORE INFORMATION: Annette Day, 277 Coffey Hall, 1420 Eckles Ave., St. Paul, MN 55108; 800-866-2474 or 612-624-4748.

Willmar Technical College

More than 250 students are enrolled in Willmar Technical College's farm opera-

tion and management, agribusiness, and veterinary technology programs. Willmar Tech offers two dairy options:

1. Agribusiness—Dairy Specialist. Most graduates of this program are employed in the feed, artificial insemination, or dairy equipment industry. There are several job openings available to each student. Students gain experience through internships in their freshman and sophomore years.

2. Farm Operation and Management—Dairy Management. This major provides management training for students going back to their home dairy farms or to work at another dairy operation. Most of the students go back to their home operation. However, the employment opportunities are tremendous, from small to large operations, registered and grade, with all ranges of responsibility. Students go on internship in October and May of each of their two years.

Willmar Tech's two-year program covers all aspects of dairy management, including in-depth business financial management. More than 50 percent of the credits taken are electives so students can select the course work that is best for them. Most courses are hands-on with students exposed to more than 10 instructors.

Willmar Tech has a very active Post-secondary Agriculture Students (PAS) club. Its dairy team placed first in the Minnesota PAS and National PAS Dairy Specialist contest in 1995 and first in Minnesota and second in National in 1994.

ESTIMATED COST: \$2,000/year tuition; about \$100/quarter books. Financial aid and scholarships available.

FOR MORE INFORMATION: Admissions Office, P.O. Box 1097, Willmar, MN 56201; 800-722-1151.

