



Initiatives



N E W S L E T T E R

UNIVERSITY OF MINNESOTA
DOCUMENTS

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Contract Raising Heifers

Is it for you?

If you're like most Minnesota dairy producers, you raise your own replacement heifers. But have you ever stopped to consider whether that's the best use of your time, energy, barn space, and forage? Far too often, splitting those resources between heifers and the milking herd means giving neither what they need to be their best.

Today, more and more producers are hiring someone else to raise the heifers. By doing so, they gain time to concentrate on the milking herd. At the same time, the heifers benefit by getting more attention than they might if they were still playing second fiddle to the cows. Thus, even though contract raising costs something at the outset, it can actually enhance profitability by increasing the productivity of the current milking herd, reducing age at freshening, and producing higher quality heifers that will make more and better milk down the road.

Pros and Cons

Is contract raising for you? As with other management decisions, you are the only one who can answer that, based on your operation's unique circumstances. A good place to start is to consider the advantages and disadvantages.

Advantages of contract raising:

- *Lower labor requirements.* It takes 20 to 24 hours of labor to raise a single calf to 24 months of age. If you contract out your heifers, that's time you can spend to improve your milking herd.



John Bush ©1995

- *More space.* If you've been wanting to build your milking herd but are limited by barn space, contracting heifers may give you the room you've been looking for.
- *More feed.* Replacement heifers account for about a third of all forage (hay and silage) use on a dairy farm. If someone else is feeding the heifers, there's that much more for your other animals.
- *Possible improved heifer quality.* Because professional growers are in the business of making good heifers, they may have an edge up on a jack-of-all-trades dairy producer. It's not that they know more than you. But they do have the advantage of being able to concentrate their knowledge and their facilities specifically on heifers, while you're

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

Heifer Health

Third in a series on raising replacement heifers

The life of your farm may be in your milking herd, but the future of your farm is your replacement heifers. Producers who pay attention to raising the best possible heifers improve their chances of having a top-producing milking herd a few years down the road.

In previous issues of *Dairy Initiatives Newsletter* we covered two important aspects of raising replacement heifers, preweaned calves and goals/growth. In this issue, we will look at heifer health.

Keeping heifers healthy is an important part of maintaining a healthy farm. Over the course of their lives, you invest substantial time and money in your youngstock. Disease can take a toll on heifers not only by death but also by reducing growth rates, lengthening the time to freshening, and resulting in a weaker, less productive animal. By keeping heifers healthy, you maximize the return on your investment and increase the odds that they will become healthy, valuable members of the milking herd.

The keys to good heifer health are hygiene, vaccination, and attention. Clean and comfortable calf and heifer facilities have fewer hiding places for germs and keep your animals in good shape for warding off disease. A solid heifer vaccination program will help prevent abortion, weak calves, and persistent infections and may reduce disease problems in your milking herd as well. Finally, by being alert to the signs of disease, you can take action to minimize the toll when problems do occur.

Following are brief descriptions of some of the more common health problems of heifers and what you can do to reduce their impact on your operation. Consult your veterinarian for advice on controlling specific problems on your farm.

Scours

Scours, caused by a variety of viruses and bacteria, is a major cause of sickness and death in young calves. Because sick animals don't grow as quickly as healthy ones, it also can increase the time it takes to get to first calving, increasing your investment in the heifer. To prevent scours, consider vaccinating dams six and three weeks before calving for K-99 *E. coli*, rotavirus, coronavirus, and enterotoxemia.

Bovine Virus Diarrhea (BVD)

This disease can interfere with the ability of the animal to fight other infections. It also causes repro-



ductive problems, including delayed return to heat, weak calves, stillbirths, mummified fetus, and abortion. Follow the vaccination program recommended by your veterinarian.

Respiratory Disease

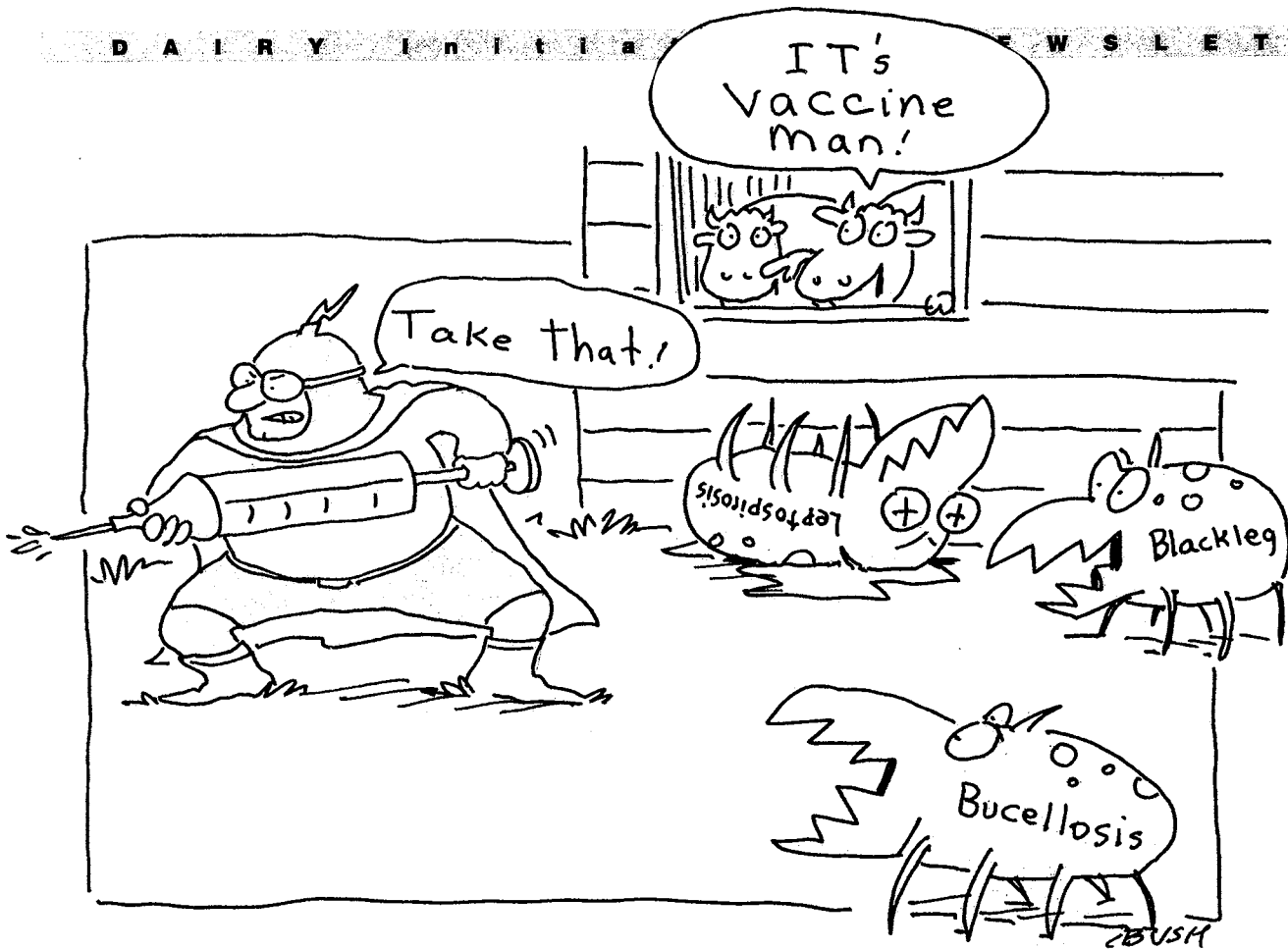
Respiratory disease may actually be a bigger problem than scours in young calves, but it's often unrecognized so it tends to get less attention. Respiratory disease tends to show up around four to eight weeks of age, and can slow growth and affect long-term performance. To minimize the problem, use calf hutches, keep bedding dry, avoid chilling animals, provide good ventilation, and be sure to feed a good diet. Include vaccinations for respiratory diseases in your vaccination program.

Respiratory Viruses

Infectious bovine rhinotracheitis (IBR), parainfluenza-3 (PI-3), and bovine respiratory syncytial virus (BRSV) are viruses that can cause respiratory disease and/or abortion in dairy herds. Work with your veterinarian to develop a sound vaccination program to prevent problems.

Navel Ill (Umbilical Infections)

Umbilical infections can weaken and kill calves. To help prevent umbilical infections, keep maternity



areas clean and treat the calf's navel with disinfectant.

Blackleg, Malignant Edema, and Enterotoxemia

These are clostridial organisms that can cause acute death in replacement heifers. Work with your veterinarian to select appropriate vaccines and timing of vaccination.

Brucellosis

More than 30 states will not accept dairy cattle unless they are official calfhood vaccinates. To maintain marketability of your cattle, have your calves officially calfhood vaccinated.

Leptospirosis

This disease causes abortion, stillbirths, and weak

calves. Vaccinate every four to six months.

Johne's Disease

This is a very important disease in dairy animals, but control is complicated because it's hard to identify carriers. Separating calves from cows shortly after birth is essential for control.

Parasites

Parasites don't always show up as an illness. Often, they just slowly and sneakily rob heifers of growth.

To minimize problems with internal parasites (nematodes), keep housing and feed areas clean, and don't put heifers on pastures that have recently been occupied by older animals. Work with your

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Colostrum is Crucial!

WE'VE SAID IT before, but we'll say it again: By far the best preparation you can give your calves to deal with the world around them is to make sure they get adequate colostrum in their very early lives. That means a first colostrum feeding of one gallon within the first six hours of life. This will require use of an esophageal feeder. High-quality colostrum is preferable to colostrum replacements.

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Manual Provides Advice on Raising Heifers

IF YOU'D LIKE to improve your heifer-raising abilities, check out the Minnesota Dairy Heifer Management Reference Manual, a comprehensive guidebook compiled by Olmsted County extension educator David Kjome. Contained in a handy loose-leaf binder, the book consists of ten separate sections on preweaned calves, goals, growth, health, housing, nutrition, reproduction, economics, custom rearing, and grazing.

To obtain a copy of the guidebook, send \$30 to David Weinand, Dairy Initiatives Program, University of Minnesota, 126 Peters Hall, 1404 Gortner Ave., St. Paul, MN 55108.

Wait! I want to give you your injection while you're dry!

Dry Cow Therapy?

SHOULD YOU USE dry cow therapy to prevent mastitis problems in heifers? Only in special cases and only when a means of heifer restraint is available, says extension dairy specialist Jeff Reneau.

According to Reneau, dry cow therapy has been shown to reduce the incidence of mastitis in heifers. However, it's not obvious whether the benefits outweigh the expenses involved. Not only that, those who use dry cow therapy run the risk of introducing mastitis into the gland unless they take extreme care to sanitize teat ends first.

Reneau recommends that dry cow therapy for prepartum heifers be used only after all other means of controlling mastitis in heifers are considered. The most important measures for keeping heifers free of mastitis:

- keep their environment clean, dry, and comfortable
- minimize stress of any kind
- feed a well-balanced diet with adequate vitamin E and selenium.

veterinarian to put together good deworming and strategic pasturing strategy for your farm.

To control ectoparasites—flies, lice, and so on—keep things clean. Calf hutches will help, too. Treat heifers for ox warbles and lice before moving into winter housing. Use other controls such as back-rubbers and sprays as necessary. Watch for lice between September and June, and treat animals that show more than 10 lice per square inch.

Coccidiosis, a digestive tract infection, reduces immunity and causes poor growth and scours. Number one control is sanitation by providing clean and dry housing. Consider coccidiostats in calf starter (e.g., Bovatec, Rumensin, and Deccox).

Mastitis

Mastitis in heifers prior to calving has been called dairying's "hidden disease." It's not always clinically obvious, but can interfere with normal mammary gland development and result in reduced production. It also can be a source of disease for milking

herd. To prevent mastitis, house calves separately. (This is especially true when calves are being fed discarded milk.) Keep calf housing clean and dry. For older calves, keep housing clean and exercise good fly control measures. ■

An Ounce of Prevention.

Furniture crafters know that it takes three legs to make a sturdy stool. In the same way, it takes careful attention to the three "legs" of health—the disease organism, the environment, and the animal—to get the most benefit from any health program.

That means that a well-fed calf will have better resistance to infection than a poorly fed, stressed one. A calf housed in a clean, well-ventilated hutch is less likely to get sick than one wading in manure in a chilly, crowded pen. Medicine may be able to cure an individual animal, but it is not a satisfactory substitute for good management.

Resources for Grazing

by DENNIS JOHNSON, Dairy Scientist, West Central Experiment Station

Many dairy farmers are turning to management-intensive grazing to improve profitability and to enhance their quality of life. Under this system, farmers use modern fencing technology to place a large number of animals on a relatively small grazing area for a short time, followed by an extended rest period to allow regrowth before the next grazing

period. The system improves yield and quality of pasture forage over conventional grazing. However, it also requires graziers to be very skillful grass managers—to know what they're doing and to do it right.

best source of intensive grazing information." Grazing circles are informal, usually meeting about once a month during the growing season. No one knows how many circles exist, but we do know that they're on the grow. Several new groups are being formed this spring. Graziers have several other important information sources, too. Reading materials include a monthly newspaper, *The Stockman Grass Farmer*, (1-800-748-9808 for subscription information), that also offers videos and books. *Grass Productivity*, by Andre Voisin, and *Greener Pastures on Your Side of the Fence*, by Bill Murphy, are classic grazing texts. *Pastures for Profit: A Guide to Rotational Grazing* (A3529) is an excellent 36-page extension publication for an introduction to intensive grazing in the Upper Midwest. And Indiana dairy farmer Dave Forgy writes informative and insightful articles that frequently appear in *Hoard's Dairyman*.

"Experienced graziers are the best source of intensive grazing information."

—Dan French, Dodge Center

If you've adopted (or are thinking of adopting) management-intensive grazing for your farm, there's a great resource available in the form of grazing discussion circles. Graziers have formed these circles as a setup for walking pastures, swapping experiences, and learning new practices. As Dan French of Dodge Center says, "experienced graziers are the

A grazing discussion group has even been formed on the Internet for those with a computer and a modem. This group includes many American and New Zealand dairy farmers and covers every topic from bloat control to the economics of swing milking parlors. This is a great resource for up-to-the-minute information. To subscribe send the message <subscribe graze-l> to <listserv@taranaki.ac.nz>. 🐄

Grazing Circles

IF YOU'RE INTERESTED in learning more about the benefits of grazing and how to establish or improve your own grazing system, you'll find grazing circles to be a valuable resource. The following contacts can tell you more:

Dan French, Dodge Center
507-635-5619

Alton Hanson, Pine City
612-629-6423

Glen Borgerding, Freeport
612-836-2682

Randy Meyer, Lake City
612-345-4925

David Minar, New Prague
612-758-3540

Joe Molitor, St. Cloud
612-252-0334

Dale Pangrac, Lewiston
507-523-2048

Ken Peterson, Tamarak
218-384-3511

Ed Radermacher, Bellingham
612-568-2110

Ralph Stelling, Millville
507-798-2410

Please limit calls to inquiries about grazing circles.

If you belong to a grazing circle not listed here and would like to let others know about your group, please send your name, telephone number, and any other pertinent information to Dairy Initiatives Newsletter, 126 Peters Hall, 1404 Gortner Ave., University of Minnesota, St. Paul, MN 55108. We will include you in a future listing.






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BVD: Deadly New Strain is on the Move

There's a new strain of BVD out that's killing cows in herds with a poor vaccination program.

Although the strain hasn't shown up yet in Minnesota, it's only a matter of time, says extension veterinarian Jerry Olson. And if its track record elsewhere is any indication, it's going to hit poorly vaccinated herds first.

The new strain, known as Type II, strikes cows as well as calves and heifers, and causes more death and illness than the more familiar BVD strain. It was first found in Canada and Pennsylvania more

- Make sure your herd is adequately vaccinated against BVD. With either a killed vaccine or modified live vaccine, replacement heifers should receive two doses of vaccine between 6 months of age and breeding. Annual revaccination with a killed vaccine is minimal. With a modified live vaccine, revaccinate according to your veterinarian's recommendations.
- Avoid moving cows into or out of your herd if possible. Assume that any purchased animals have not been vaccinated. If possible, vaccinate open animals with modified live vaccine and pregnant animals with killed vaccine prior to arrival; if not, vaccinate upon arrival.
- Separate new or sick cows from the rest of the herd for a minimum of two weeks (assuming the rest of the herd is well immunized). Remember, however, that this still doesn't prevent reproductive losses if one of the purchased animals is persistently infected.
- Minimize stress, overcrowding, and mixing animals, especially in animals within the last month prior to calving.
- Find and eliminate persistently infected cows. Most diagnostic labs will test animals for about \$10 to \$15 per blood sample. The diagnostic lab at Cornell has developed a new test that costs \$5 per sample. 

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than a year ago. Like Type I BVD it causes abortions and stillbirths, and can produce weak, persistently infected calves that then go on to infect the rest of the herd. Calves, heifers, and cows show fever, diarrhea, bleeding, poor eating, and respiratory problems, and may die within just a few days after showing the first symptoms.

What to do? To reduce the risk of this deadly disease strain crippling your herd, USDA experts recommend the following:

Component Pricing and You

When the new pricing system kicks in later this year, some producers will gain, others will lose. Which will you be?

by J. W. HAMMOND

Department of Agricultural and Applied Economics, University of Minnesota

Upper Midwest milk producers are likely to see a big change in how buyers report and pay for milk, thanks to new federal milk marketing regulations expected to go into effect sometime this summer or fall. The new system, known as multiple component pricing (MCP), is designed to more accurately and equitably reflect the value of milk to buyers.

Current federal order milk pricing programs fix a base price per hundred-weight of 3.5 percent butterfat milk, then individual buyers decide what they will pay for variations from that figure.

Under the MCP system, payment will be based on pounds of butterfat, protein and other nonfat solids, along with a differential that reflects the producer's proportional share of the fluid market premium.

Chances are MCP is not an entirely new concept for you. Milk buyers already adjust price for butterfat. Many also give premiums for above-standard protein or nonfat solids (though you don't now get docked for lower protein or nonfat solids). The big difference between this system and the new MCP plan is that the component pricing will no longer be at the buyers' discretion.

Under the federally mandated MCP plan, producers' payment for milk will be based on five factors:

- (1) the value of butter produced from milk;
- (2) the value of protein as determined from its value in the production of cheddar cheese;
- (3) the value of other milk solids as determined from the difference between the current Minnesota-Wisconsin (M-W) manufacturing milk price base and the values of the protein and fat components;

(4) the producer's share of the market Class I and II price differentials (the effect of the differentials will not change under MCP, but you'll see their impact noted on the milk check as "producer price differential"); and

(5) a somatic cell premium or discount. This will be applied much the same as it is now by processors, but the adjustments will be standard for all milk buyers.

What all this means is that under the new method the price of milk with 3.5 percent butterfat and average protein and other nonfat solids content (as currently established in the Upper Midwest Milk Marketing Orders) will stay essentially the same as it is now. What will change is the way prices are reported and paid and the value of milk that differs from 3.5 percent butterfat and market average protein and other solids content.

To illustrate how producers will be affected by MCP, I looked at data prepared by the Market Administrators Office of the Upper Midwest Federal Milk Order Market for July 1994. For that month, the federal order required payment to producers a minimum of \$11.52/cwt for milk containing 3.5 percent butterfat and a differential of \$0.060 plus/minus for each 0.1 percent more/less butterfat. If the proposed MCP plan had been in place, the prices of the milk components would have been set by the administrator of the Federal Milk Marketing Order. Then the amount of butterfat, protein, and other solids in each producer's milk would have been paid for at the minimum component prices. This would have resulted in the following minimum prices:

<i>Butterfat price</i>	<i>\$0.6931/lb</i>
<i>Protein price</i>	<i>\$1.6570/lb</i>
<i>Other solids price</i>	<i>\$0.7173/lb</i>
<i>Producer differential</i>	<i>\$0.11/cwt</i>
<i>SCC premium/discount</i>	<i>\$0.062/1,000 SCC</i>

Table 1 (page 8) shows how three hypothetical milk producers who each delivered 75,000 pounds of milk to a buyer would fare under current and MCP pricing schemes. The milk differs in butterfat, protein, and other solids content, but to simplify the comparison I assume that the SCC is at the standard level for all three producers.

If you look at the table, you'll see that under the current scheme Producer A would get \$11.57 per hundredweight, Producer B would get \$11.82 per hundredweight, and Producer C would get \$11.32 per hundredweight. The difference is only due to differences in butterfat content. All three receive the same price for the nonfat solids and total skim milk even though these differ substantially and even though variations in the amount of nonfat milk solids have a large and direct effect on the amount of most dairy products that can be produced from milk. (Interestingly, on average the nonfat components accounted for 78 percent of the total value of the milk.)

As the table shows, the butterfat value (reflected in both pricing schemes) creates a \$218 difference in price between the high and low producer. When

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Component Pricing and You

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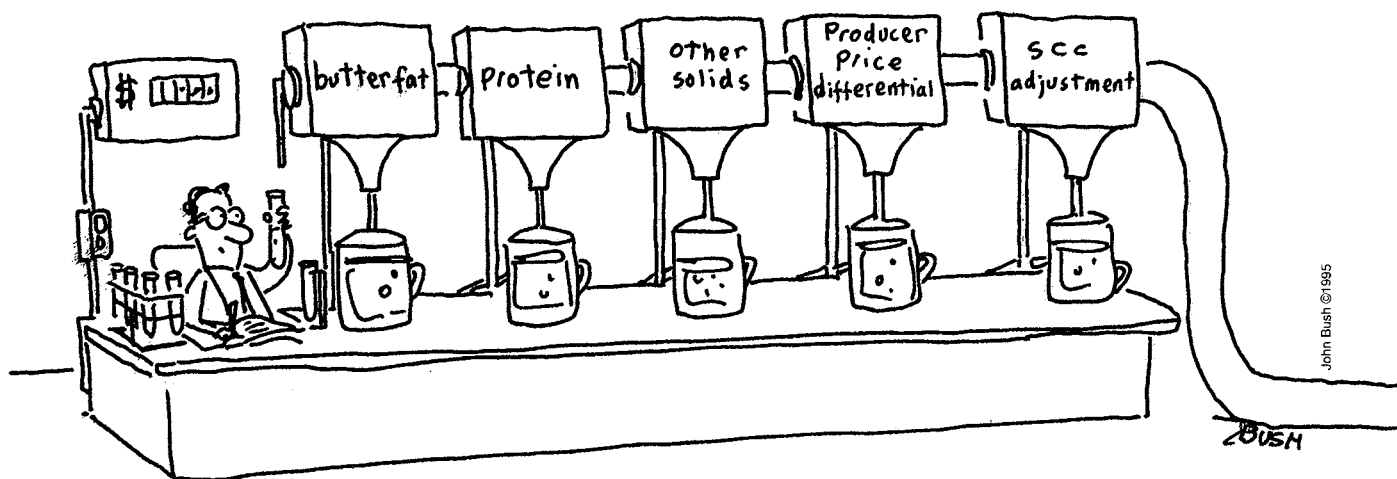
prices are calculated under the MCP scheme, there is another \$224 difference between the "best" and the "worst" milk. The producer price differential is the same for all, regardless of milk components.

So what impact will MCP have on you? That depends on the level of milk solids in your milk. If you are at or near market averages in all milk solids, you will receive approximately the same income. If you have both high butterfat and nonfat solids, you will receive a noticeable increase in income. If you have lower components, you will receive noticeably less.

The implications for management are obvious. When MCP goes into effect, it will be more important than ever for you to focus on the nonfat components of your milk. The producer who makes decisions about culling, breeding, feeding, and so forth that will increase nonfat components will be the one who comes out ahead. 🐄

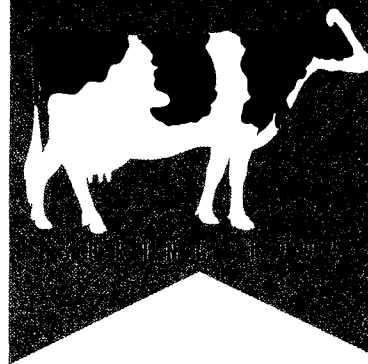
Table 1. Comparison of producer milk pricing for the Upper Midwest Federal Order under current method and under proposed MCP, calculated for July 1994 milk and component prices.

	PRODUCER PRICE OR INCOME FOR JULY 1994		
	PRODUCER A	PRODUCER B	PRODUCER C
75,000 lb milk	75,000 lb milk	75,000 lb milk	75,000 lb milk
3.58% Bft	4.00% Bft	3.16% Bft	
3.08% Protein	3.20% Protein	2.96% Protein	
5.41% Other Solids	5.55% Other Solids	5.27% Other Solids	
350,000 SCC	350,000 SCC	350,000 SCC	
CURRENT SYSTEM			
\$11.52/cwt @ 3.5% Bft ± \$0.06 per 0.1 % Bft difference from 3.5 %			
Average Price at Test=	\$11.57/cwt.	\$11.82/cwt.	\$11.32/cwt.
Total Income =	\$8,677.50	\$8,865.00	\$8,490.00
MCP			
Value of butterfat = price of butterfat x pounds of butterfat =	\$1,860.97	\$2,079.30	\$1,642.65
Value of protein = price of protein x pounds of protein =	3,827.67	3,976.80	3,678.54
Value of other solids = price of other solids x pounds of other solids =	2,910.44	2,985.76	2,835.13
Value of producer price differential = producer price differential x cwt milk =	82.50	82.50	82.50
Value of SCC adjustment = ± \$0.062/cwt for each 100,000 count difference from 350,000) =	0	0	0
Total Income =	\$8,681.58	\$9,124.36	\$8,238.82
GAINED OR LOST INCOME FROM ADOPTION OF MULTIPLE COMPONENT PRICING	+\$4.08	+\$259.06	-\$251.16



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 leaders receive update on status of Minnesota dairy industry

Stressing the importance of TEAM — "Together Everyone Accomplishes More" Thief River Falls dairy producer Rhonda Amundson, member of the Minnesota Dairy Leaders Roundtable lead off a recent meeting of the Roundtable.

The Roundtable, which meets every several months, assembled in St. Cloud in March in conjunction with the annual meeting of the Minnesota Milk Producers Assn..

Don Ault, president of Ag•Nomics Research, presented an update on a study of Minnesota's Dairy industry that he completed for the Minnesota Dairy Promotion Council three years ago.

He reported that Minnesota's share of the total U.S. milk production continues to decline, and at a pace that approaches the worst case scenario that he used in his earlier study. As a percent of U.S. production Minnesota has declined from 7.5 percent in 1980 to 6.8 percent in 1990 and

just slightly above 6 percent in 1994.

Total Minnesota milk production in 1994 was 9.3 billion pounds, down from 9.8 billion in 1990, Ault reported.

The Dairy Leaders Roundtable has set a goal of returning Minnesota to its 1990 production levels which equal 6.8 percent of total U.S. production or the equivalent of 11 billion pounds of milk annually.

Ault also noted a continuing decline in the number of

At the end of 1994 the number of cows had declined by 100,000 and dairy farm numbers were down more than 3,000.

dairy cows and dairy farms in Minnesota. In 1990 Minnesota had 710,000 cows and 15,500 dairy farms. At the end of 1994 the number of cows had declined by 100,000 and dairy farm numbers were down more than 3,000.

Minnesota's growth in milk production per cow is lagging behind the national average for the 1993-94 period by approximately 350 pounds. The U.S. average for the period was 424 pounds. Cali-

fornia showed a 310 pound growth, Wisconsin a 196 pound growth and Minnesota a 75 pound growth. Minnesota's average total milk production per cow, which is 15,340 pounds is also below the national average of 16,128. The average in California is 20,258 and Wisconsin's average is 15,001 pounds.

Milk production on a statewide basis dropped 3.6

percent in 1994 versus an increase of 9.1 percent in California, 4.5 percent increase in Washington and a nearly 27 percent increase in New Mexico. Ault reported, however, that for the first time in perhaps more than a year Minnesota milk production on a monthly basis increased in February 1995.

In concluding his remarks, Ault noted the state's dairy industry was on a "tragic and

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disturbing path toward a 30 percent decline between 1990 and the year 2000."

A University of Minnesota College of Agriculture staff paper recently completed by Jerry Hammond was also given to Dairy Leaders Roundtable

growth sectors. Herds in excess of 100 cows will continue to expand while the declining sector herds of less than 50 cows will become less and less important in the states' dairy industry."

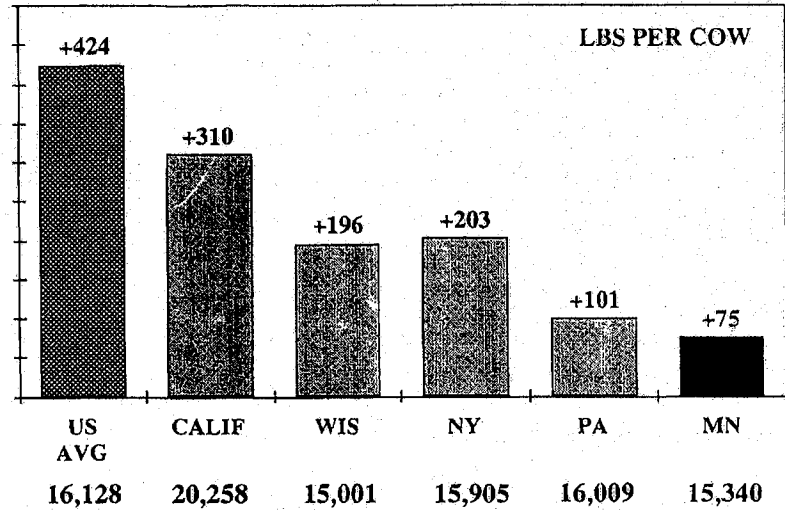
Hammond, however, notes

that although milk production will expand it will not be enough to increase the states' share of national production. He also says the continuing decline in dairy farm families will result in difficult adjustment problems in rural America.

The general decline in milk production in Minnesota and Wisconsin should end before the end of the decade.

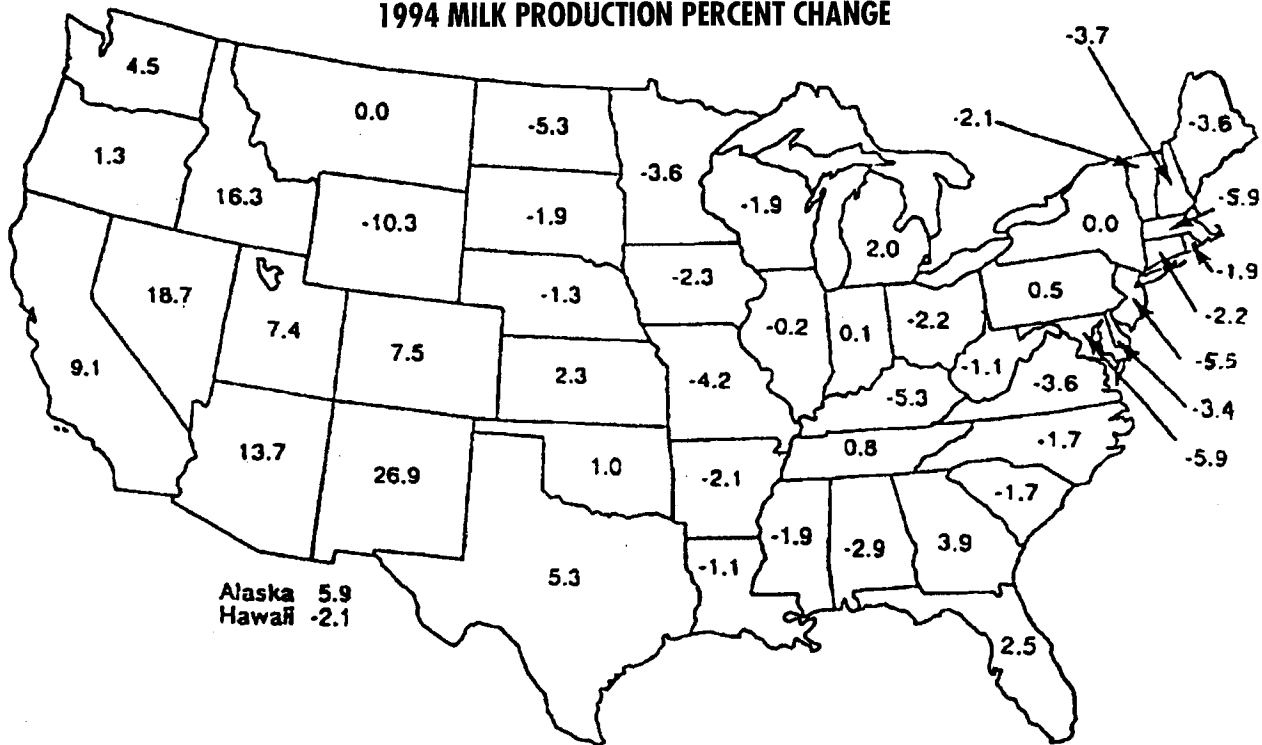
participants. In his paper Hammond notes an encouraging sign for the Upper Midwest dairy industry: "The general decline in milk production in Minnesota and Wisconsin should end before the end of the decade. It will occur because the dairy industry in these two states do have

**GROWTH IN OUTPUT PER COW
1993-94**



MINNESOTA RANKED 24TH AMONG STATES IN MILK PER COW IN 1994

1994 MILK PRODUCTION PERCENT CHANGE



LEGISLATIVE PROPOSAL FOR DAIRY SUPPORT

"The good news about the status of Minnesota's dairy industry is that there is room for improvement," said Allen Gerber, coordinator of the Roundtable's legislative coalition.

Gerber reviewed the particulars of a support proposal for dairy that is before the Minnesota legislature. He noted that the Minnesota legislature has done a number of things over the years to turn the negative trends in the dairy industry around. In the last three years Gerber said the state has contributed more than \$85,000 for a collaborative effort with the Dairy Leader Roundtable. The dairy industry itself has donated more than \$120,000.

The \$1.2 million proposal before the legislature would be an investment in educational programs that will give the greatest

benefit and return to the individual dairy producer. This would include the development of a full "tool box" of educational materials (with the help of dairy-oriented organizations throughout the state) that provides farmers with basic information on production, finance and marketing.

Major components of the proposal call for on-farm dairy education programs focused on serving the middle one third of producers (based on profitability).

"The next couple years are critical to the long term health of the dairy industry and support by the state for a focused approach to change in the industry will help determine its future," said Gerber.

Survey Reveals Producer Attitudes

The Roundtable's Economic Development task force recently presented a summary report of a survey and program conducted on dairying in five counties in east central Minnesota.

Task force members Denis Warta, George Morse and Paul Hansen reported the goals of the program were to:

- Develop an understanding of the business climate for dairy producers in the five counties.
- Help producers with local business concerns and opportunities.
- Develop action plans to retain and enhance dairy farm business.
- Assess the need for a dairy business community network

The farms survey average about 50 cow herds, 200+ acres in size with fewer than 25 percent of the operators working off-farm jobs (nearly 50 percent of spouses had off-farm work).

Over two thirds of those

responding to the survey said they were highly likely to continue in dairying; 16 percent said they were uncertain; and 11 percent said it was highly unlikely they would continue in dairying.

Almost half of the survey respondents who said they plan to continue in dairying said they felt it was "likely or very likely" to expand their operation.

The survey found that 20 percent of producer respondents felt "very pessimistic" about the economic outlook of the dairy industry while 13 percent said they were "very optimistic" about the future.

A series of business retention and enhancement strategies and recommendations were developed on the basis of the survey and include the following:

- Develop dairy diagnostic teams to work directly with producers to improve their operation.
- Develop dairy producer discussion groups to discuss ideas for improvement.

Management Changes Expected

MANAGEMENT PRACTICE	% LIKELY/ UNLIKELY	% UNCERTAIN
expand dairy herd	48	18
increase use of hired labor	33	9
switch to total mixed rations	29	29
contract purchases of grain	28	22
change manure handling	24	9
add partner	24	6
expand manure storage	21	21
drop one or more crops	15	24

- Encourage active participation in dairy events.
- Explore issues relating to planning, zoning and environmental challenges that are viewed as potential hindrances to the industry,
- Offer tours of successful dairy operations.
- Establish a Dairy Optimists Club.

These recommendations and others were presented to producers and local business leaders in the five country area as a means by which to encourage dialogue and focus on retention and enhancement strategies for the dairy industry.



Lee Johnston, left, President of the Minnesota Milk Producers Association, received a plaque from the Minnesota Dairy Leaders Roundtable in thanks for continuing support of the Roundtable. The plaque was presented by Vern Smith, Minnesota Bankers Association.

Video presentation stresses importance of dairy to state

The Minnesota Dairy Promotion Council is nearing completion of a new video presentation on the state's dairy industry. The video, which highlights the heritage, economic importance and challenges facing the industry, will be shown in presentations to community groups throughout the month of June.

Mike Kruger, who heads the council, told Roundtable members the video will be shown by dairy producers to an estimated 1,000 business leaders in the top 50 dairy counties in the state.

In addition to showing the economic importance of the industry, the video will include interviews with three producers who exemplify the changes taking place in the industry. This will include an example of a farmer employing rotational grazing and seasonal milking with a herd of about 70 cows; a flat barn parlor example with a 100-cow herd; and a contract heifer-raising operation with more than 300 cows.

Kruger said the video will underscore the seriousness of the challenges facing the industry, but states very clearly that we have the tools available to meet the challenge. It will call on business leaders, government officials and financial institutions to be supportive in helping rebuild the industry.

Calendar of Events

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

A P R I L

11-12 Four State Program Planning with ADSA Midwest Sectional Meeting, Des Moines. Contact Joe Conlin, 612-624-7497.

M A Y

24-25 Minnesota Dairy Health Conference, Earle Brown Center, St. Paul. Contact Jan Storebo, 612-624-3434.

J U N E

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

J U L Y

14-15 Minnesota Holstein Association State Show, Rochester, MN. Contact the Association at 612-259-0637.

A U G U S T

2-8 Dairy Tour of Eastern Wisconsin. Bus tour of Door County. Contact Pat DeSteno, 462 Coffey Hall, 1420 Eckles Ave., St. Paul, MN 55108-6068, 612-625-1214

N O V E M B E R

20 Fall State Sale, Minnesota Holstein Association, Hutchinson, MN. Contact the Association at 612-259-0637.

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

Managing for Component Pricing

HOW DOES A producer get ahead under the new component pricing? Traditionally, incentives have been for high butterfat and low SCC. Those will still be there. But in addition, you'll find yourself rewarded for increasing nonfat solids.

The nonfat component of milk is composed of protein, lactose, and minerals. Lactose and mineral are relatively constant in milk—about 4.75 percent and 0.7 percent, respectively. That means that to increase nonfat solids, you need to increase the percent of protein in the milk and/or the amount of milk a cow produces.

The best way to do this is through genetics—breeding cows and bulls with a reputation for high protein and milk production. Once you have a herd with the genetic potential for high non-fat solids, you can work on feeding and management strategies to maximize the expression of that potential.

FEEDING FOR MILK PROTEIN

The nutritional factors affecting milk protein also affect milk production. The goal is to increase pounds of protein produced by increasing milk production, increasing percent protein, or both.

The following nutritional factors have been related to increasing milk production and/or percent protein:

DIETARY PROTEIN. Increases in dietary protein result in increases in milk nonprotein nitrogen (NPN). Milk urea nitrogen is an example of milk NPN. The increases in milk protein from increased dietary protein are greatest when the energy content of the diet is low.

ENERGY INTAKE. Feeding starches or carbohydrates tends to increase milk protein production. When fed in correct proportion with dietary protein, this practice will increase milk production as well as milk protein percent. Milk protein percent and milk production tend to decline as neutral detergent fiber (NDF) increases in the ration.

THE ADDITION OF FATS IS A LITTLE MORE COMPLICATED. Added fat generally decreases milk protein percent. However, because it also increases milk production, the total milk protein produced often will increase. When contemplating increasing fats to increase production, remember that while all fats tend to decrease milk protein, rumen-inert or rumen-protected fats generally have the least depressing effect.

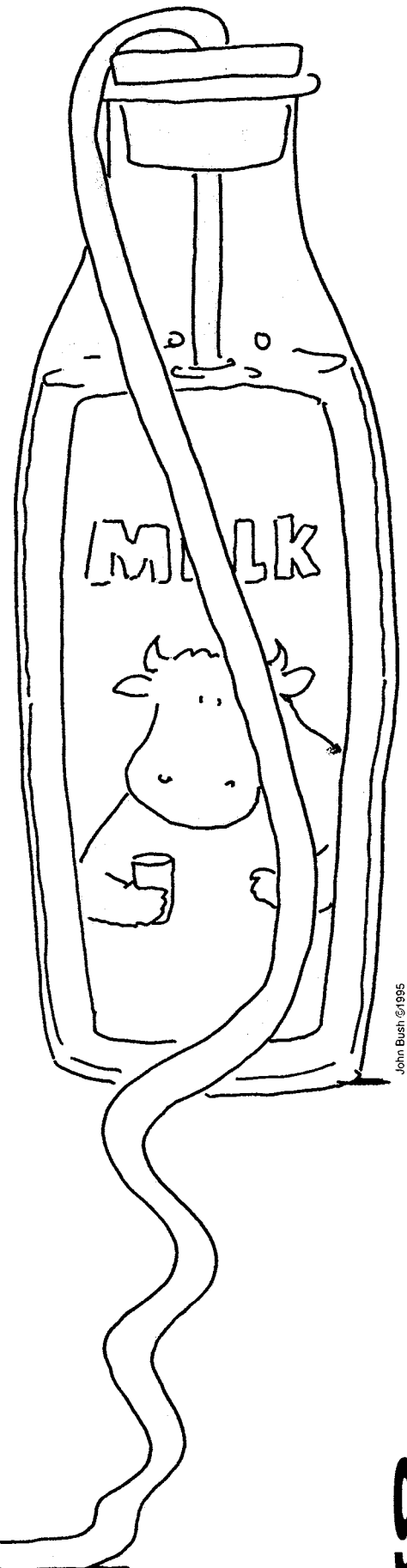
BYPASS PROTEIN AND AMINO ACIDS. The amino acids lysine and methionine are the most limiting for milk protein synthesis. Thus, an increase in milk protein could be anticipated by feeding protein sources that are high bypass sources of these amino acids and high in availability in the small intestine. Feeding rumen-protected sources of lysine and methionine has also been shown to increase milk protein in some research studies. However, you still need to provide sufficient quantities of other amino acids for optimum milk protein.

THE BOTTOM LINE

When all is said and done, the best way to maximize milk protein is to maximize milk production and maintain a “normal” milk protein concentration. To accomplish this, first make sure your herd has the genetic potential for good milk and protein production. Then make the most of those good genes by:

- feeding adequate amounts of nonfiber carbohydrates (NFC) in the diet at 35 to 40 percent;
- providing a balance in degradable and undegradable (bypass) protein;
- avoiding diets high in fiber (above 21 percent ADF) or forages high in fat (above 5 percent of DM) and low in carbohydrates (less than 35 percent NFC).

—Jim Linn, *Extension Dairy Nutritionist*



Contract Raising Heifers

Continued from page 1

doing a thousand things at once.

- *Possible lower replacement costs.* Professional growers often can raise heifers for less money because they can take advantage of economies of scale and can achieve earlier freshening by grouping animals and managing them according to their stage of growth.

Disadvantages of contract raising:

- *Loss of outlet for lower quality feeds.* Many producers give the best forages and feeds to the milking herd, and the rest to the heifers. If you move your heifers off the farm, you'll lose that outlet for poorer feeds.
- *Possible conflicts.* Working with another person opens up room for disagreements and misunderstandings. Your nature and the nature of the grower you choose will influence how much this is likely to affect you.
- *Loss of control.* If you're a hands-on manager, it may be hard for you to give up the day-to-day

to pay their way.

- *Possible increased costs.* It may cost more to contract out heifers than to raise them yourself. Again, this depends on many variables, some of which you can control by how you word the contract.
- *Possible disease exposure.* If your animals are housed with others, there's a chance for disease to spread.

As you consider these disadvantages, remember that many of them can be influenced by your choice of grower and by how you draw up the contract. The grower you choose for your heifers should be someone you can talk to, someone who hears and understands your goals and is willing to work to meet them. The contract should be specific enough so that you both clearly understand your responsibilities and liabilities and what you expect of each other.

Types of Contract

There are lots of options when it comes to drawing up a contract. In some, the grower takes on much of the risk for changes in feed cost and in how well the animals gain. Others give you more control. You and your grower together will decide which is best for your circumstances.

Gain-based contracts. In a gain-based contract, the grower is paid according to how much the animal gains. The price per pound may vary because gain varies with age. Expenses may be built into the rate or billed separately. Gain-based contracts have the advantage of being easy to calculate. A disadvantage is that the incentive is for high gain, which is not always best for the animal.

Daily fee. You pay a fixed rate per head per day. This is perhaps the most simple type of contract. However, be sure to build your expectations for growth into the contract, or you leave the grower without a contract incentive to produce quality heifers.

Feed plus yardage. In this case, you pay a daily fee plus feed costs (or supply feed). In this type of agreement, you carry the risk of rising feed costs. But you also benefit if feed gets cheaper.

Ration cost only. The fee is based on feed costs plus a markup to cover other expenses. Since animals eat variable amounts, this takes away much of the predictability of the total cost of raising heifers.

How Many? How many replacement heifers do you need to keep your milking herd in good shape? Most producers raise 90 to 100 heifers for every 100 cows in the milking herd. But as the table below shows, you can get by on fewer if you keep replacement rates under control and raise good quality heifers that can freshen early. The advantage? You pour less money into your heifers, increasing the profitability of your overall operation.

Herd replacements needed per 100 cows:

Cull Rate	Age at First Calving (months)					
	22	24	26	28	30	32
25%	51	56	60	65	70	74
35%	71	78	84	91	98	103
45%	92	100	108	117	125	133

control over what your heifers eat, how they're monitored, and so on.

- *Possible loss of quality.* There's always the risk that things won't go as you expect, and the heifers will not be up to your standards.
- *Possible wasted space.* If you don't use your heifer facilities for other money-making activities, you'll end up paying taxes on and depreciating a bunch of boards and block that are doing nothing

Option to purchase. In some instances, the grower actually buys the heifers, but the owner retains the right to buy them back at a predetermined price. This arrangement puts most of the risk and uncertainty on the grower's shoulders.

Contract Contents

A good contract should spell out what you can expect from the grower and what the grower can expect from you. It also should describe who is responsible for what.

Performance. Let the grower know in writing what your expectations are for performance. A good measure of performance is weight, height, and body condition scores. The following table, which shows performance of high-yielding dairy herds in Wisconsin, is a good starting point for describing your expectations. Remember, however, that heifers are animals, not machines, and you have to allow some leeway for individual variation.

Growth rates of Holstein replacement heifers calving at 24 months of age in high-producing Wisconsin herds.

Age (mo)	Weight (lb)	Height (in)	Body condition score*
1	130	31.8	2.00
2	175	33.4	2.25
4	275	37.1	2.25
6	410	41.1	2.50
8	520	43.8	2.50
10	655	46.5	2.75
12	775	48.5	2.75
13	825	Breeding age 49.1	3.00
14	870	49.7	3.00
16	950	50.6	3.25
18	1070	51.7	3.25
20	1185	52.7	3.50
22	1265	53.3	3.50
24	1375	54.1	3.75

* Body condition scores based on a 5-point scale (1=thin; 5=fat)

Record keeping. Specify what kinds of records you expect the grower to keep. A reasonable standard would be monthly weight, height, and body condition measures and records of vaccinations, treatments, and breedings. The grower also should let you know of any sickness, loss, or unthriftness.

Responsibilities. It's also important to spell out which of you is responsible for the various aspects of heifer raising. The following checklist can help you:

Responsibility	Grower	Owner	Other
BREEDING			
breeding service			
semen & semen cost			
sire selection			
heat detection aids			
pregnancy checking			
heat detection			
FEED			
ration balancing			
forage			
grain			
protein supplement			
mineral			
salt			
feed additives			
VETERINARY			
autopsy			
routine health care			
emergency health care			
medications			
vaccinations			
deworming			
dehorning			
hoof trimming			
fly & parasite control			
death losses			
GENERAL			
identification			
record keeping			
growth monitoring			
labor			
insurance			
bedding			
manure hauling			
trucking			
electric & water			
repairs & maintenance			

Other. Your contract also should specify the amount and frequency of payment, any requirements for insurance, and who pays for breeding fees, drugs, veterinary services, transportation, and other expenses. As with any contract, be sure to seek legal advice as appropriate to ensure a fair and agreeable outcome for all.

Continued on page 12

Contract Raising Heifers

Continued from page 11

The Cost of Getting A Head

IT'S TOUGH TO decide whether it's worth hiring someone else to raise your heifers unless you have some notion of what it costs you to do it yourself.

A 1991 Wisconsin study estimated that it costs \$1,133 to raise a heifer that freshens at 24 months (\$1,425 if you include the cost of labor, management, and the value of the calf). The same study figured it costs an extra \$2 for each day beyond 24 months the heifer freshens. The following table, adapted from the Wisconsin Farm Enterprise Budget 1991, shows how the cost of raising a replacement heifer breaks down over time:

Cost Per Month for Raising Replacement Heifers

EXPENSE CATEGORY*	FIRST 3 MONTHS	MONTHS 4-12	MONTHS 13-24	MONTHS 1-24	OVER 24 MONTHS
feed costs	\$16.67	\$15.68	\$ 26.11	\$ 21.52	\$25.68
other variable costs	10.28	6.78	10.49	8.57	3.57
fixed/over-head costs	12.27	14.65	20.18	17.11	23.75
labor charge	13.33	8.00	6.67	8.00	6.40
cost/month	52.55	45.11	63.44	55.20	60.10
calf value	100.00	-	-	100.00	-
Total Period Cost	\$257.64	\$406.06	\$761.30	\$1,425.01	-

* excludes death losses and management charge

These figures, of course, vary substantially from farm to farm. But they can form a starting point for your decision. If you'd like to see the breakdown of these numbers so you can compare them with your own operation, ask your county extension office for issue number 116 of Dairy Update, or contact the University Department of Animal Science at 612-624-4995. 🐄

David Weinand to Head Dairy Initiatives Office



David Weinand has taken over as community program specialist/Dairy Initiatives effective December 1994. He replaces Lisa Peterson, who left

the program to take another position. His responsibilities include working with the *Dairy Initiatives Newsletter*, providing coordination assistance for programs put on by the Dairy Initiatives staff, and helping to promote the Minnesota dairy industry through the Dairy Initiatives Program. 🐄

Just a Thought...

In dairy farming, as in other businesses, the difference between the ones that get ahead and the ones that have to run as fast as they can to keep from being swept downstream often boils down to a four-letter word: H-E-L-P. The novice thinks the way to get things done is to work longer and harder. The pro, on the other hand knows the key is to work smarter—and that often means involving others and doing things well rather than trying to do it all yourself and ending up with only a mediocre result.





Durst Brothers Stress Teamwork, Profitability

BY DAVID WEINAND

FARM FACTS: The Durst Brothers' farm is located approximately eight miles south of Wanamingo, Minn. Ron, Allen, and Ken have been working together since 1980, when they purchased the 120-cow, 345-acre farm from their father. Now, along with Ron's wife, Marsha, they manage more than 600 cows with a rolling herd average of 24,954. Of the 2,500 acres that they run, they own 1,700 acres and rent an additional 800 acres. Some 550 acres of that is in alfalfa, 400 acres is in soybeans, 1,200 acres is in corn, 80 acres is in pasture, and the remainder is in set-aside planted with sorghum and Sudan grass. All cows and heifers are fed a total mixed ration using a commodity-based ration that is routinely monitored and adjusted by a private feed consultant.

SMART MOVES: During the past 15 years the Dursts have made several changes in order to accomplish their goals. One of their strengths is their diverse interests in the farm. Allen works on maintenance of the equipment and buildings in addition to planting and harvesting the crops, Ken is in charge of feeding, sanitation, and youngstock and Ron takes care of the business side of the partnership, hires employees, and works with the parlor staff and dry cows. With a staff of 10 people there is a lot to keep track of, but one advantage, according to Ron, is that because they are a big operation, they can allow people to specialize in situations that they are comfortable with.

Another principle is that they control costs while monitoring progress toward their goals. For example, they plan ahead by drawing up a budget and cash flow for the year and then monitor it on a monthly basis.

"It costs us about \$10.45 to produce a hundred pounds of milk," Ron says. "By knowing that we can better control our costs." He adds that through better udder management they have been able to keep their SCC between 150,000 and 160,000. "You get paid twice for doing a good job" and by having fewer problems you get more milk, he says.

A third factor that has helped the Dursts is that they net-



photo: David Weinand

Allen, Ron and Ken Durst.

work with other successful dairy producers. Communicating with others at a level of management equal to or greater than their own has allowed them to move forward with their plans to become even more profitable. They gather a lot of information before making a decision, but have an open mind to try new ideas.

.....
 "You get paid twice for doing a good job."

—Ron Durst

The Dursts see themselves in a transitional phase, like the rest of the Upper Midwest. Ron points out that the dairy industry hasn't seen a period of change like this for 10 to 15 years. He sees the opportunity to possibly merchandise some of their cattle or add even more of their own heifers to the milking string than they have in the past.

The Dursts are now putting together the pieces to form a long-range plan for their farm. Ron pointed out that the financial and production side of business will become more important in the future. "You will have to upgrade or you will have problems," he says, noting that this will become increasingly important if they are to reach their goal of producing milk for \$10.00 per hundredweight or less. 🐄

*Beyond the Bottom Line:***Options for Affordable Health Insurance**

Is your health insurance costing you more than 10 percent of your disposable income? If so, you might want to look into alternatives that have developed as a result of recent state government efforts to make health care more affordable, says John Kralewski, head of the University of Minnesota's Institute for Health Services Research and Policy.

In many cases Minnesota farm families pay 40 to 50 percent more for health insurance than their urban counterparts

According to Kralewski, most Minnesota farm families pay far too much for health care. The reason? They either buy coverage as individuals and so lack the negotiating and buying power enjoyed by employer groups, or they belong to small group plans that are not aggressively trying to reduce costs. In many cases Minnesota farm families pay 40 to 50 percent more for health insurance than their urban counterparts—and even then have huge deductibles and copayments that leave them paying hundreds, if not thousands, of dollars in health care expenses from their own pockets.

The good news, Kralewski says, is that Minnesota farmers can join a special pool of small business owners that has combined forces to buy health insurance at a group rate. Known as the Minnesota Employees Insurance Program, or MEIP (pronounce it "meep"), the state-coordinated—but not subsidized—program brings together small employers to create the negotiating power needed to buy health care coverage at prices that are much lower than individual plans.

Is MEIP for You?

MEIP's big advantage is cost. "Our rates are very competitive in the group insurance market, which is generally better than individual insurance plans," says MEIP underwriter Steve Johnson. In addition, Johnson says, the program does not turn down people based on their health history.

MEIP provides coverage through four compa-

nies—HealthPartners, Blue Cross & Blue Shield of MN, Medica, and Fortis Benefits Insurance Company, so you can pick the one that best meets your needs. The only requirement is that there be a minimum of two people (you and your spouse, for instance) working on the farm. The farm is then insured as a business and the entire family is covered. Also, to maintain stability you must commit to MEIP for a two-year period.


If you'd like to learn more about whether MEIP is for you, you can request a packet describing options by calling the program's sales representative, Sedgwick James, at 612-851-5601 (toll free 1-800-829-5601). The packet also includes a form you can send back for a free insurance quotation.

A Low-Income Option

If your income falls below certain levels, you also may qualify for reduced-rate health insurance through the subsidized part of the MinnesotaCare program. This program was set up by the 1992 state legislature to provide medical coverage for persons who earn too much money to qualify for Medical Assistance, but too little to afford other health care insurance.

In order to qualify for this program, you must not have had health coverage (other than Medical Assistance or certain coverage for children) for the previous four months and must make less than a specified amount of money. That amount varies depending on the size of your family (for example, \$2,160 per month for a family of two—\$1,025 if both are adults—and \$4,400 for a family of six). Once you are enrolled, you pay a monthly insurance premium on a sliding scale based on your family size and income. Individuals also can join this program if their incomes are less than \$767 per month.

MinnesotaCare covers the range of basic health care costs, including doctor visits, most prescriptions, immunizations, some dental services, and limited hospital care. There is a copayment for some adult services, but no copayment for children covered under the plan.

For more information on MinnesotaCare, call the Minnesota Department of Human Services at 1-800-657-3672 (297-3862 in the Twin Cities metro area). 

What to Look For in Health Insurance

CHOOSING AMONG HEALTH insurance options can be a tough task. Each program has its own list of what is and isn't covered, deductibles, copays, and so forth. With so many variables it can be hard to decide who is going to meet your needs for the best overall cost.



John Bush ©1995

One way to simplify the process of comparing plans is to set up a table such as the one here. Fill in the blanks with the cost of coverage, the extent to which the service is covered, copayments required, and any coverage limit for each of the options you're considering. Remember to factor in the nonmonetary considerations, too. Will you have to choose a new doctor? Will you have to travel farther to get health care? What is the reputation of the provider?

Only you can decide what you can afford to buy and what you can't afford to NOT buy in health insurance. But by gathering as much information as you can about your alternatives and weighing them wisely, you are taking a big step toward helping to make sure that you and your family get the health care that you need, and that a major illness or injury doesn't end up literally costing you the farm.

Type of Service	Plan A	Plan B	Plan C
	\$ _____	\$ _____	\$ _____
doctor's office visits			
preventive care			
surgery			
mental health care			
chemical dependency care			
chiropractic care			
therapy (physical, occupational, etc.)			
home care			
hospitalization			
prescriptions			
eye care			
prosthetics and medical equipment			
emergency services			
other			



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Initiatives

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