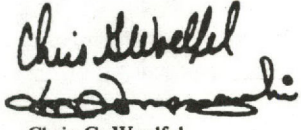


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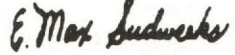
# Balanced Dairying PRODUCTION

  
Chris G. Woelfel  
Michael A. Tomaszewski  
College Station (409) 845-4937

### EXTENSION DAIRY SPECIALISTS

  
Al G. Lane  
Stephenville (817) 968-4147

  
Ellen R. Jordan  
Dallas (214) 231-5362

  
E.M. Sudweeks  
Overton (903) 834-6191

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## Does Quality Pay?

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Ellen R. Jordan  
Extension Dairy Specialist

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As dairy producers, you strive to produce the highest quality milk you can. But when you're up to your neck in mud, as we have been through much of this winter, you wonder if you can afford to reach the goal.

First, how do you define quality milk? You probably think of quality in terms of milk composition, low bacteria and somatic cell counts, and absence of antibiotics. As milk prices go through their usual spring decline, you also want to ensure that producing quality milk is profitable.

For years, you have been receiving payments on milk fat percent. More recently, some producers have received premiums based on protein composition. Some Federal Milk Market Orders have already implemented

payment based upon milk protein or total solids. Others soon will.

The other three factors-bacteria count, somatic cell count, antibiotic residues-can determine whether or not you have a milk market. When you are below the legal limit, it may be harder to see how these three factors can influence your profitability.

Let's start by looking at somatic cell count. Table 1 shows you a list of somatic cell count levels and the potential loss in milk production as somatic cell count increases. In a second or later lactation cow, each time the somatic cell count doubles, 1.5 pounds of milk per day is lost, or 400 pounds per lactation. During first lactation, the loss is .75 pounds per cow per day or 200 pounds per lactation.

Educational programs conducted by the Texas Agricultural Extension Service serve people of all ages regardless of socioeconomic level, race, color, sex, religion, handicap or national origin.



With a 200-cow herd, reducing your somatic cell count from 800,000 to 400,000, you could produce an additional 80,000 pounds of milk per year. At \$12 per cwt. that amounts to \$9600. Thus, reducing somatic cell count can help you by increasing production per cow.

Many also receive direct payments for lower somatic cell count milk. And while \$ .05 or \$ .10 per cwt. may not seem like much, if you have 200 cows producing at 15,000 pounds of milk per cow per year, a \$ .05 payment would amount to \$1500 per year, and a \$ .10 payment would return \$3000. With today's tight margins, you can't afford to ignore any quality bonuses.

It also may be hard to see the return from reduced bacteria count. This area is important to protecting your market share. Consumers expect milk not to spoil in the refrigerator until after the expiration date. As bacteria counts increase, shelf life decreases. You may also be affected if your marketing agency has to take back spoiled product, and consequently returns fewer dollars to you, their supplier.

The final area of discussion is producing milk without antibiotic residues. You are all aware that if you ship milk containing antibiotic residues, you could be charged for a tanker load of milk. New regulations in the Pasteurized Milk Ordinance (PMO) require that a farm's Grade A permit be suspended for two days for the first drug residue violation. With the second and subsequent violation, the suspension increases to four days and the Grade A permit can be revoked.

There are also other incentives to reduce antibiotic use on the farm. Practices to improve the health of your herd reduce the need for antibiotics and the cost of those antibiotics. By reducing antibiotic usage, you also can minimize the milk discarded while withholding milk from treated animals.

In the end, you should see a positive impact on your balance sheet whether you improve quality by increasing components or decreasing somatic cell counts, bacteria level or antibiotic usage.

Table 1. Estimated Milk Production Loss with Various Somatic Cell Levels

Somatic Cell Linear Score	Somatic Cell Count (1,000) Mid-Point	Milk Yield Losses, Lbs.			
		Per Day		Per 305d Lactation	
		1st Lactation	2nd(+) Lactation	1st Lactation	2nd(+) Lactation
3	100	.75	1.5	200	400
4	200	1.5	3.0	400	800
5	400	2.25	4.5	600	1,200
6	800	3.0	6.0	800	1,600
7	1,600	3.75	7.5	1,000	2,000
8	3,200	4.5	9.0	1,200	2,400
9	6,400	5.25	10.5	1,400	2,800



## **The Quality Assurance Program A Team Solution**

Ellen R. Jordan  
Extension Dairy Specialist

Consumer confidence in the dairy industry has been shaken by news reports concerning antibiotic residues in dairy products. In response to these concerns, a producer program, the Milk and Dairy Beef Quality Assurance Program, has been developed.

The "Milk and Dairy Beef Residue Prevention Protocol" should be implemented on every farm in the country. Effective implementation of this program must be a team effort, with producers, veterinarians, farm workers, field representatives and other consultants working together.

The residue prevention protocol is based on the Hazard Analysis Critical Control Point concept developed to improve quality control in any production process. A joint liaison committee of the American Veterinary Medical Association and the National Milk Producers Federation identified the ten critical control points in the dairy production process where drug residue problems were most likely to occur (See list).

The protocol begins with a review of practices for healthy herd management. Although there is heavy emphasis on the veterinarian/client/patient relationship, other consultants such as your nutritionist and equipment service representative, also may be included in discussions when evaluating healthy herd management.

As guidelines for the use of over-the-counter and prescription drugs become more restrictive, the need for a valid relationship with your veterinarian will increase. The only time you should be using drugs in an extra-label manner is when a veterinarian has prescribed the treatment and withdrawal times. Then you, the producer, must follow the veterinarian's instructions properly.

The manual includes information to help you develop a veterinarian/client/patient

### **Ten Critical Control Points**

1. Practice Healthy Herd Management.
2. Establish a Valid Veterinarian/Client/Patient Relationship.
3. Use Only FDA-Approved Over-The-Counter Prescription Drugs with Veterinarian's Guidance.
4. Make Sure All Drugs You Use Have Labels That Comply with State and/or Federal Labeling Requirements.
5. Store All Drugs Correctly.
6. Administer All Drugs Properly and Identify All Treated Animals.
7. Maintain and Use Proper Treatment Records on All Treated Animals.
8. Use Drug Residue Screening Tests.
9. Implement Employee/Family Awareness of Proper Drug Use to Avoid Marketing Adulterated Products.
10. Complete the Quality Assurance Checklist Annually.



relationship; review proper storage, labeling and administration of drugs; outline a record system; select a drug screening test; and design an employee/family awareness program.

This program will also help you meet the requirements for shipping milk under the Pasteurized Milk Ordinance (PMO). The standards and regulations governing the sale of Grade A milk are defined in the PMO.

Late last year federal inspectors in Snohomish County, Washington graded 16 dairies. Those dairies scored only 73 points. The main violations were uncleanliness and improper drug storage. Not only were producers degraded temporarily, they had to pay an additional \$.50 to \$2 per cwt. to have milk shipped in to replace their milk. Implementation of the milk and dairy beef residue prevention protocol should help you keep from losing your certification because drugs weren't stored properly.

#### **Why Another Program?**

You may be questioning the need for a Quality Assurance Program. The program is a proactive approach to ensure that drug residues are prevented in the milk supply and in the meat from cull dairy cows and calves.

Hopefully you can minimize liability insurance cost increases by implementing the Quality Assurance Program. Farm liability insurance may cover some of the costs when a tanker load of milk is contaminated. Ultimately, all policy holders share the cost of the loss through their premiums.

This program is also designed to minimize meat contamination. Producers who have shipped cull cows or calves found to have drug residues in carcasses have had their farms quarantined. Animals leaving the farm subsequently must be tested. Regulatory officials may also scrutinize treatment and sales records.

Once implemented by producers, this program can be another tool to calm consumer fears. Consumer perceptions of dairy product safety

can dramatically affect the demand for dairy products and the dollars you receive.

The National Dairy Promotion and Research Board conducted a survey to evaluate consumer perceptions of the milk supply. Of the consumers surveyed, 80% strongly agreed with the statement that chemical residues in milk are a problem. In addition, 56% thought the use of hormones and antibiotics should be more strictly regulated.

The issue is not whether these statements are true or false. Consumers fear what they cannot control. We should learn from the Alar scare in the apple industry. When newspaper, radio and television coverage heightened consumer concern about the cancer risks of Alar on apples and apple products, prices were quickly depressed. It has been estimated that in Washington state alone, producers suffered a \$100 million loss as a result of the crisis.

By participating in the quality assurance program, producers lead the industry toward a proactive response to consumer concerns, instead of just doing damage control. If the industry fails to respond to consumer demands producers will be the losers.

Besides losing further market share to competing products, you may lose access to over-the-counter drugs. Federal guidelines also might become more restrictive in regard to veterinary prescribed extra-label use of drugs. Many consumer activist groups and politicians are eager to establish public policy related to food safety and quality. These regulations could be extremely restrictive, costly and difficult for farmers to implement. By being proactive and being vigilant in maintaining the highest standards, the dairy industry can not only restore lost consumer confidence but build new levels of respect for dairy products.

#### **Obtaining the Manual**

The manual can be purchased for \$5.00 by contacting Sandra Lindemann, Executive Secretary, Milk & Dairy Beef Quality Assurance Program, 801 Shakespeare, Box 497, Stratford, Iowa 50249, 515-838-2793.



## PMO Changes

Ellen R. Jordan  
Extension Dairy Specialist

On January 1, 1992, changes occurred in the monitoring and surveillance portions of the Pasteurized Milk Ordinance (PMO). The PMO establishes standards and regulations governing the sale of Grade A milk.

For some time in Texas, virtually every tanker load of milk has been tested for antibiotic residues. Now, every tanker load of milk in the nation must be tested for residues caused by the beta-lactam drugs (penicillin, cloxacillin, cephalosporin, ampicillin, amoxicillin, ticarcillin and ceftiofur).

The difference for Texas producers is how positive samples are reported. In the past, the procurers of the raw milk conducted the screening. If any samples were found in violation, individual producers were identified and worked with to remedy the situation.

Under the new regulations, when an antibiotic violation occurs, the Texas Department of Health must be notified immediately. Procurers must also keep records on the final disposition of the raw milk which was adulterated with antibiotics. The milk cannot be diverted to a cheese plant or into any other portion of the human food chain.

In addition to testing for beta-lactams, a random sampling program is being initiated to screen for residues caused by other drugs. At a minimum, four samples collected in four separate months will be screened during any consecutive six month period. The Food and Drug Administration will determine when a potential problem exists with animal drug residues or other contaminants. A variety of data will be used to initiate drug screening, including sample survey results, United States Department of Agriculture tissue residue data from cull and veal dairy animals, state feedback and any other relevant information.

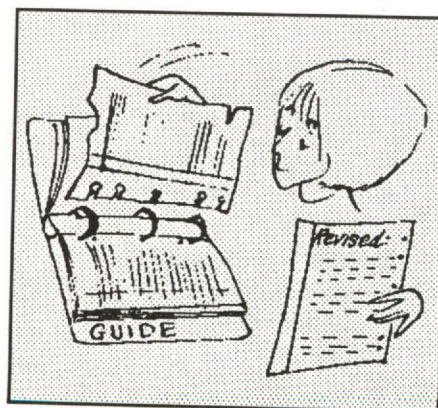
Whenever a producer is found to have shipped milk adulterated with antibiotics, for the first

violation the Grade A permit must be suspended for a minimum of two days or an equivalent penalty assessed. No further pickups of milk can be made until subsequent tests are no longer positive for antibiotic residues.

If a second violation occurs during a 12-month period the suspension increases to four days. A third violation within a 12-month period results in the Grade A permit being suspended for four days and the regulatory agency is required to initiate administrative procedures to revoke the producer's permit.

After a milk sample from a producer's farm is no longer positive for antibiotic residues, the permit may be restored to a temporary status. But after July 1, 1992 the Grade A permit is only reinstated by the regulatory agency when both the producer and a licensed veterinarian have signed the Milk and Dairy Beef Quality Assurance Program certificate for display in the milk house.

This certificate states the producer and veterinarian have reviewed the residue prevention control education program and the producer has agreed to implement appropriate management procedures to avoid violative drug residues. The certificate is also signed by the field representative of the milk plant or cooperative.





## Coming Events

- March 28 - State Holstein Sale, Comanche
- April 11 - Jersey Protein Sale,  
Sulphur Springs
- April 22 - Washington-Fayette-Grimes-  
Harris Counties Dairy Tour,  
Burton
- May 14 - Southwest Dairy Field Day,  
Stephenville
- June 1-3 - Texas State Holstein Show,  
Ft. Worth
- June 1-3 - Texas Association of Milk,  
Food and Environmental Sanitarians,  
Austin
- June 9-10 - State 4-H Round Up and  
State Dairy Judging Contest,  
College Station



### Southwest Dairy Field Day

Al Lane  
Extension Dairy Specialist

Plan to attend the Southwest Dairy Field Day on the George DeVries Dairy in Erath County, Texas on Thursday, May 14, 1992.

From 10 a.m. until noon you can see waste management and feed handling equipment demonstrated by manufacturers.

Other companies and organizations servicing the dairy industry will also have exhibits on display from 10 a.m. until 4 p.m.

Lunch will be served from 12:00 - 12:30 p.m. followed by a discussion of milk quality and large herd management from 12:30 to 2 p.m.

The DeVries Dairy is approximately 5 miles west of Stephenville on the Stephenville sanitary landfill road, which intersects 377 south of Stephenville. Signs will be posted from 377 to the DeVries Dairy on May 14, 1992. The public is invited to attend.

For more information contact Al Lane, Extension Dairy Specialist, Texas Agricultural Extension Service, Rt. 2, Box 1, Stephenville, TX 76401, 817/968-4144.



# Herd Monitoring: The Changing DHI

Michael A. Tomaszewski  
Extension Dairy Specialist

Several years ago, DHI stood for milk recording. Not any more. Texas DHI is nationally recognized for bringing to its members programs that assist them to increase herd profit. In light of today's roller coaster milk prices, the ability to pinpoint problems provides you a path to improve herd management.

An example of such a program is LacCurv. This lactation curve analysis program allows users to graph their herd's milk, milkfat, protein and somatic cell information in various ways. With LacCurv you can look at lactation trends, evaluate seasonal calving patterns, or determine the economic consequence of summer heat stress. You can also determine the adequacy of your dry cow rations or the consequence of transitional changes between production groups.

A second program is CTAP, Current Testday Analysis Program. CTAP allows you to

compare this month to last month by evaluating a number of herd performance parameters. Through this program you are able to determine if your new ration is working, your somatic cell program was successful, and your cows are being bred at the right time.

Herd monitoring is another example of the Texas DHI's commitment to providing you with management alternatives to remain competitive.

In addition to herd monitoring, Texas DHIA provides its members mainframe-based production programs as well as a full line of PC and remote access on farm systems. These programs allow users to access their records which have been maintained by professionals for you, its members.

No matter how large or small a herd you have, DHI has a program to meet your specific needs.



## DID YOU KNOW?

The maximum allowable somatic cell count will drop from the current level of one million to 750,000 effective July 1, 1993. Current estimates indicate 12-15 percent of Texas producers will need to reduce their somatic cell count to meet these new standards.



## TEXAS SUMMARY FOR DECEMBER 1991

Information Summarized	12/31/90	11/30/91	12/31/91
DHI-DHIR Herds (cows)	556	505	510
DHI-DHIR Cows	110,063	105,264	104,599
Avg. Milk/Cow/Day	44.9	42.9	45.7
Avg. Percent Fat	3.5	3.6	3.6
Avg. Fat/Cow/Day	1.60	1.59	1.67
Avg. Feed Cost/Cwt. Milk	6.19	5.87	5.62
Private Herds	112	118	119
Private Cows	30,809	28,603	28,757
DHI-DHIR Herds (goats)	36	27	27
DHI-DHIR Goats	626	597	423
Total Herds Enrolled	704	650	656
Total Animals Enrolled	141,498	134,464	133,779

High DHI Herds.....Michael A. Tomaszewski

These rankings are furnished by the DRPC at Raleigh for a given period of time. If a herd was tested late one month, it may cause that herd's average not to appear on that month's listing. The average would then be compared to other herd averages in the next month. Herds are ranked by test day averages. Only official herd averages are used. String averages are not used if they are not official. We have no control over how the herds appear on this list since it is a computer listing.

### Ranking by Protein

Herd Owner	No. Cows	Milk (lbs)	Protein (lbs)
Ricks Dairy	540	67.0*	2.19
Charles Green	67	72.2*	2.17
Dillard & Jake Schenk	112	66.7	2.16
Robert Steinberger, Sr.	373	69.1*	2.14
Highland Cattle Company	275	66.7*	2.14
Leo A. Hoff	349	62.9	2.14
Rio Grande Dairy	1559	67.2*	2.11
Ralph Albracht	168	64.8	2.06
Kasbergen Dairy H-all	476	63.0*	2.05
Bobby J. Traweek	63	63.0	2.04
Moer-Milk Dairy	264	60.2	2.04
Green Valley Dairy	328	61.9	2.03
Round Mountain Dairy	300	61.3*	2.02
George DeVries	1278	61.0	2.01
Kenneth R. Wolf	122	59.0	2.01

### Ranking by Milk

Herd Owner	No. Cows	Milk (lbs)	Fat (%)	Protein (%)
Charles Green	67	72.2*	3.0	3.0
Robert Steinberger, Sr.	373	69.1*	3.1	4.0
Rio Grande Dairy	1559	67.2*	3.1	4.0
Ricks Dairy	540	67.0*	3.3	3.8
Dillard & Jake Schenk	112	66.7	3.2	3.4
Highland Cattle Company	275	66.7*	3.2	3.1
Ralph Albracht	168	64.8	3.2	3.0
Dr. Jimmy Horner	35	64.7	3.0	3.8
Kasbergen Dairy H-all	476	63.0*	3.3	3.4
Bobby J. Traweek	63	63.0	3.2	3.3
Leo A. Hoff	349	62.9	3.4	3.9
T M H Dairy	252	62.9	.0	.0
Bill Stansell	115	62.1*	3.0	3.3
MJB Dairy	1369	61.9*	3.1	3.4
Green Valley Dairy	328	61.9	3.3	3.3

\*3X/Day milking

### Top Ten 305-Day Lactation Records

Following are the ten highest DHI mature equivalent, 305-day lactation records for butterfat production reported to the Extension Dairy Science office during December from the Processing Center at Raleigh, North Carolina.

Herd Owner	Cow Identity	Breed	Date of Birth	ME Milk	% Fat	ME Fat
Stanley J. Haedge	11661252	H	12-29-83	27,191	5.1	1384
Cobb Dairy	74TYK5997	H	11-09-89	26,914	5.1	1163
Stanley J. Haedge	11393855	H	02-13-83	24,465	4.6	1144
MJB Dairy	74TPN3650	H	03-08-88	25,593	4.9	1129
Leo A. Hoff	13127234	H	10-07-87	26,677	4.3	1122
Green Valley Dairy	13485994	H	06-02-88	24,374	4.6	1109
Stanley J. Haedge	13579928	H	11-10-88	21,272	5.3	1108
Fine-Meadow Farm	11770947	H	07-13-83	25,610	4.1	1107
High Hill Dairy	74TPW6530	H	02-18-88	28,165	4.0	1102
High Hill Dairy	74TUD0778	H	12-12-89	31,545	3.5	1100