
**ARIZONA AND NEW MEXICO DAIRY NEWSLETTER**

**COOPERATIVE EXTENSION**
**The University of Arizona**
**New Mexico State University**

**SEPTEMBER 2004**

## THIS MONTH'S ARTICLE:

# Keeping Calves Healthy

**Samuel M. Leadley**
**Attica Veterinary Associates**

(Reprinted from the Western Dairy Management Conference, March 2003, Reno, Nevada)

## Register Online for the Arizona Dairy Production Conference

Visit our website at cals.arizona.edu/extension/dairy/conference/registration_2004 to download a registration form that may be mailed or faxed to us, or register online using your Visa, Mastercard or Discover credit card. If you need assistance, call Laura Rittenbach at (520) 626-9382, or email ljr22@ag.arizona.edu.

# University of Arizona Extension Dairy Website: http://cals.arizona.edu/extension/dairy

# New Mexico State University Extension Dairy Website: http://nmsu.edu/~dairy

The following videos are available for checkout from the New Mexico State University. To obtain a video, call Kathy Bustos at (505) 646-3226 or email kbustos@nmsu.edu. The video will be sent in the mail pending availability. There is only one copy of each video available, so we request that videos be returned within two weeks. Note that several of the videos contain and English and Spanish version.

1. *The Milking School*. Utah State University. Spanish and English. 1998. 30 minutes
2. F*itting and Showing Your Dairy Animal...A Winning Experience*. Department of Dairy Science, University of Wisconsin. 1996. 20 minutes
3. *Proper Milking Procedure.* University of Florida. Spanish and English. 1988. 12 minutes
4. *Milking Machine Maintenance*. University of Florida. Spanish and English. 1988. 16 minutes
5. *The Basics of Vacuum and Milking Systems*. DHIA Services. 1991. 53 minutes
6. *Understanding Dairy Cattle Behavior to Improve Handling and Production*. Livestock Conservation Institute. 1992. 23 minutes
7. *Managing Milking/Ordenar Lecheria*. Hoard's Dairyman. Spanish and English. 1999. 33 minutes
8. *Get Milk? Joining A Dairy Crew*. University of New Hampshire. 1999. 45 minutes



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# 3rd Annual Arizona Dairy Production Conference

## Thursday, November 4, 2004

Sheraton Phoenix Airport Hotel
1600 South 52nd Street
Tempe, Arizona
(480) 967-6600

## Order of Presentations and Speakers:

9:45 a.m. — *Cooling Decisions - ADS Shade Tracker vs. Korral Kool*
**Matthew J. VanBaale, Ph. D.**
Assistant Professor/Extension Dairy Specialist
Department of Animal Sciences
The University of Arizona

10:25 a.m. — *Facilities - Dry Lot vs. Saudi vs. Freestall*
**John F. Smith, Ph. D.**
Professor/Extension Specialist - Dairy
Department of Animal Sciences and Industry
Kansas State University

11:25 a.m. — *Milking Parlor Efficiencies*
**Normand St-Pierre, Ph. D., P.A.S.**
Professor, Extension Dairy Specialist
Department of Animal Sciences
The Ohio State University

1:00 p.m. — *Heifer Raising and Management*
**Matthew Meyer, M.S.**
Research Assistant
Department of Animal Sciences
Cornell University

1:40 p.m. — *Milk Price Futures from a Dairy Producer's Perspective*
**Dennis Kissler, C.T.A.**
Managing Trading Director/
Chicago Mercantile Exchange Floor Trader
KIS Futures Trading, Inc.

2:20 p.m. — *National Identification Costs and Regulations*
**Robert Fourdraine, Ph. D.**
Chief Operating Officer
Animal Identification and Information Systems
Wisconsin Livestock Identification Consortium

For more information, contact Laura Rittenbach at
ljr22@ag.arizona.edu or (520) 626-9382

**Register at http://cals.arizona.edu/extension/dairy/conferences/registration_2004.html**

# 2004 Conference Registration Form

Send registration form and fees to: The University of Arizona
Attn: Laura Rittenbach
PO Box 210038
Tucson, AZ 85721

***OR***

Fax form with credit card information to: 520-621-9435

***OR***

Register online at http://cals.arizona.edu/extension/dairy/conferences/registration_2004.html

**Registration fee:** $25.00 X _____ = $_____
# people

**Additional proceedings:** $10.00 X _____ = $_____
# additional proceedings

Total amount enclosed or charged to credit card: $_____

**Name**

**Organization**

**Address**

**Phone**

**Email**

**If paying by credit card:** ☐ **Mastercard** ☐ **Visa**

**Credit Card #** **Expiration Date**

*No part of the registration fee is considered a tax deductible donation.*

For addidtional information call 520-626-9382 or email ljr22@ag.arizona.edu

# Keeping Calves Healthy

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*What defines a successful calf enterprise?* Calves are alive. Calves are healthy. Calves are growing well.

*What does it take to achieve these three goals?* Calf care tasks must be done properly all the time and on time.

This afternoon our goal is to review these calf care tasks. I have chosen to start with newborn care. We will follow these calves through weaning. Intensive calf feeding programs are not included because Dr. Van Amburgh has dealt with that topic.

Most of the following text is organized either as outlines or as checklists. These may be duplicated and used on the farm as a way to evaluate current rearing practices. Our on-farm goal is to determine if tasks are being done properly all the time and if tasks are being performed in a timely fashion.

**Newborn Calf Care**
***Goals***
1. Help the calf to adapt to her new environment.
2. Help the calf maintain good health.

**Living Outside the Dam**
*Help get a dry hair coat.* The dam will usually lick off the calf. We can finish the job with a couple of bath towels. Our goal is a fluffy hair coat that helps the calf adapt from 102° F. inside the dam to outdoor temperature. In freezing weather, a draft-free warm place will help finish the manual-drying job. Examples would be a hutch with a heat lamp, a warming box with a heater.

*Help the calf stand up.* If she is not up in the range of 15 to 30 minutes, provide assistance. By just helping her stand up we have jump-started her metabolism about four times the resting rate.

*Help her get a good first meal soon after birth.* She needs lots of energy to adapt to this world outside her dam. Colostrum contains twice as much dry matter as whole milk. It is high in both fat and protein to meet the calf's immediate needs after birth.

**Keeping Healthy**
*Help her keep away from adult cow manure.* As little as one teaspoonful of manure in her gut prior to colostrum feeding can be fatal.

*Help her keep pathogens out of her umbilical cord.* Dip the navel with 7 percent tincture of iodine. Navel dipping (a) cleans off the outside of the umbilical cord, (b) kills residual bacteria on the outside of the cord as well as inside the open end, and (c) dries the umbilical cord tissue discouraging pathogen movement up the cord and into the liver.

*Help her build adequate immunity through transfer of her dam's colostral antibodies into her blood.* Feed an adequate amount of good quality colostrum as soon as possible after birth. If the calf is unable to nurse use an esophageal tube feeder. If good quality colostrum is unavailable add an effective colostrum supplement. There is no substitute for early feeding.

**Feeding Preweaned Calves: Colostrum**
How do your procedures measure up? Do they provide the opportunity for your calves to grow into their genetic potential?

Let's consider procedures for feeding colostrum. Compare your routines with the standards that follow. Rather than just answering "yes" or no you may wish to use these scores: 1=never, 2=seldom, 3=often, 4=usually, and 5=almost always.

_____ 1. All feeding equipment that comes in contact with colostrum is scrubbed after every use.

_____ 2. When periodically cultured for bacteria, colostrum as fed to calves is not contaminated with environmental bacteria thus reducing septicemia and scours. Badly contaminated colostrum may also substantially reduce the rate of antibody transfer as well.

_____ 3. Colostrum contaminated with mastitis and blood is discarded.

_____ 4. Colostrum quality (antibody concentration) is estimated and the best quality available fed to heifer calves. While only a very rough guide to quality, a Colostrometer. may be used to exclude the lowest quality colostrum. Feeding more of poor quality colostrum is not an effective substitute for a good quality product.

_____ 5. Colostrum is fed to heifer calves no more than four hours after birth and to at least one-half of the heifer calves within one hour after birth. One-half of a heifer's ability to absorb antibodies is gone within six hours; three-quarters of this capability is gone within twelve hours after birth.

_____ 6. Plenty of good quality colostrum is fed. Average and large calves are fed four quarts within the first six hours. Smaller calves are fed proportionately less but still more than two quarts.

_____ 7. When only low quality colostrum (low antibody concentration) is available, an effective colostrum supplement is added to boost its antibody content.

_____ 8. When possible, fresh or refrigerated colostrum is fed rather than frozen colostrum. Thus, the calf gets a full dose of maternal immune cells as well as the maternal antibodies.

**Feeding Preweaned Calves: Milk Replacer**

How do your procedures measure up? Do they provide the opportunity for your calves to grow into their genetic potential?

Let's consider procedures for feeding milk replacer. Compare your routines with the standards that follow. Rather than just answering "yes" or no you may wish to use these scores: 1=never, 2=seldom, 3=often, 4=usually, and 5=almost always.

_____ 1. All feeding equipment that comes in contact with milk is scrubbed after every use.

_____ 2. Equipment sanitation procedures meet these standards: (a) prewash rinse between 105-110°; (b) chlorinated hot water wash consistently over 120° and includes manual brushing; (c) acid rinse between 50-100°; and (d) equipment dries between uses.

_____ 3. Milk replacer is stored so that it remains both clean and dry to promote good mixing and reduce scours.

_____ 4. Milk replacer is mixed at the temperature recommended by the manufacturer to promote even distribution of fat and reduce denaturing of proteins.

_____ 5. Milk replacer is 100-105° when drunk by the calves to promote favorable feed conversion.

_____ 6. Milk replacer is fed regularly at the same time daily according to the same routine preferably by the same caretakers to promote good eating habits and favorable feed conversion.

_____ 7. When periodically cultured for bacteria, milk replacer mix as fed to calves is not contaminated by environmental bacteria thus reducing scours.

_____ 8. For farms feeding waste milk, when periodically cultured for bacteria, the waste milk as fed to calves is not contaminated by environmental bacteria thus reducing scours and improving feeding conversion rates.

**Feeding Preweaned Calves: Water**
How do your procedures measure up? Do they provide the opportunity for your calves to grow into their genetic potential? Growing requires lots of water.

Let's consider procedures for water. Compare your routines with the standards that follow. Rather than just answering "yes" or no you may wish to use these scores: 1=never, 2=seldom, 3=often, 4=usually, and 5=almost always.

_____ 1. During the entire preweaning period calves have free-choice access to water.

_____ 2. Good quality water is provided that is free of urine and feces.

_____ 3. Good quality water is provided that has low concentrations of pathogens, noxious minerals, chemicals, and inert and organic contaminants.

_____ 4. Access to water is not restricted due to stuck valves, freezing weather, water too high to reach, or excessive contamination.

**Feeding Preweaned Calves: Starter Grain**
How do your procedures measure up? Do they provide the opportunity for your calves to grow into their genetic potential? Growing requires lots of protein and energy found in grain. Rumen development depends on starches found in grains, too.

Let's consider procedures for starter grain. Compare your routines with the standards that follow. Rather than just answering "yes" or no you may wish to use these scores: 1=never, 2=seldom, 3=often, 4=usually, and 5=almost always.

_____ 1. During the entire preweaning period calves have free-choice access to starter grain.

_____ 2. Good quality starter grain is provided that is free of mold, urine and feces.

_____ 3. Good quality starter grain is provided that is clean and dry.

_____ 4. Prior to calves regularly eating at least a cupful of starter grain daily, the starter grain is replaced daily.

_____ 5. Good quality starter grain is provided that is palatable. Less than 5 percent will pass through a 0.8mm screen – about the size of window screening. At least 80 percent of the grain pellets are still whole after a day in a grain bucket.

_____ 6. Access to starter grain is not restricted due to lack of palatability, contamination, being frozen or the grain bucket being too high to reach.

**Washing Milk Containers Checklist**
1. Are the containers rinsed before going into the wash water?

Organic compounds destroy the bacteria-killing power of chlorine in the wash water. Dirt and milk are organic compounds. Most of them will rinse off easily before washing.

High temperatures change milk proteins. It makes them stick to surfaces. We don't want milk protein to stick to milk containers. Thus, we try to rinse the protein off the containers before we wash them in hot water.

Always use lukewarm water. **DO NOT rinse with hot water.**

2. Are the containers washed in hot soapy water with a germicide? Are they brushed vigorously?

Milk fats, proteins and sugars are sources of food for bacteria. We brush container surfaces vigorously to loosen these solids. These milk solids are suspended in the wash water.

If wash water temperatures fall below 120 (49 C) the suspended solids will stick to container surfaces. Do not put containers into wash water below 120 that contains suspended milk solids. The containers will come out dirtier than when they went into the water.

3. Are the containers rinsed in an acid solution after washing?

Even with the best rinsing and washing small amounts of milk solids remain on containers. Small numbers of bacteria remain there, too. An acid rinse lowers the surface pH. Most bacteria grow very poorly in very acid conditions.

Pipeline acid at the rate of about 1 ounce per 5 gallons (30 ml per 19 liters) of lukewarm water will lower container surface pH adequately. Manual wash acid/sanitizers dilute at about the same rate. They are preferred for this step. They keep the pH lower longer than milk line acid.

4. Are the containers allowed to completely dry between uses?

Bacteria require moisture in order to grow. If we dry our containers between uses the rate of bacterial regrowth slows down.

Avoid stacking pails inside each other until completely dry. Never sit freshly washed pails upside down on a concrete floor. That creates a bacterial incubator (warm, damp, and dark).

Let's consider procedures for sanitizing feeding equipment. Compare your routines with the standards that follow. Rather than just answering "yes" or no you may wish to use these scores: 1=never, 2=seldom, 3=often, 4=usually, and 5=almost always.

_____1. I rinse my milk containers in lukewarm water before washing them.

_____2. I wash my milk containers in water above120° F (49 C).

_____3. I use soap and chlorine in my wash water.

_____4. I rinse my milk containers in an acid solution after washing.

_____5. I allow my milk containers to completely dry between uses.

**Calf Weaning Checklist**
*How long has she been eating starter grain?*

*Has she been eating starter grain for at least 3 weeks?* Start counting days on grain when she regularly cleans up a measurable amount daily. That's roughly ½ cup.

Assuming she has access to water, after a calf begins to eat grain she takes about three weeks of fermentation in her rumen to develop papillae. They are tiny finger-like growths on the inside of the rumen wall. They are essential for absorbing nutrients from rumen fermentation.

*How much starter grain is she eating?* Is she eating 1 ½ to 2 quarts (that's about the same as pounds) daily? If a 150-pound calf eats this much starter grain daily she can meet her maintenance needs and grow 1 pound a day

in 50° weather. Bigger calves need more for maintenance. Higher growth goals require more. Colder weather conditions require more. How regularly is she eating grain?

*Is she eating at least a minimum of 2 quarts daily?* That is different that an average of 2 quarts varying from less than a quart one day to more than 3 quarts two days later. One characteristic of rumen maturity is regular feed intake. Irregular intake is associated with acidotic rumen conditions and undesirable digestion. Calves with greater rumen maturity tend to even out their grain intake (assuming they have free-choice access to starter grain and water).

*Is the calf generally healthy and growing?* No matter how it is done weaning is stressful for a calf. Even if calves continue to grow at weaning, the rate of growth falls off for about 5 to 7 days after weaning. If a calf's immune system is in any way depressed (scours, respiratory illness, navel infection, dehorning, change in housing, exceptionally hot or cold weather, poor bedding), it's good management to delay weaning until conditions change.

Let's consider procedures for weaning calves. Compare your routines with the standards that follow.
Rather than just answering "yes" or no you may wish to use these scores: 1=never, 2=seldom, 3=often, 4=usually, and 5=almost always.

_____1. Nearly all my calves have been eating grain for at least three weeks before I begin weaning them.

_____2. Nearly all my calves are eating 2 quarts of starter grain a day before I wean them.

_____3. Nearly all my calves are eating enough starter grain every day before I wean them.

_____4. If a calf is stressed (depressed immune system) I wait until she has recovered before I wean her.

**Weaning Calves: Four Management Strategies**

***Least management intensive***

Feed a uniform amount of milk or milk replacer to all calves (usually two quarts twice a day). Delay weaning until calves are about ten to twelve weeks of age. Abruptly stop feeding milk to all calves. Usually all of the calves are eating at least two quarts of starter grain daily; many calves are eating much more grain than this.
Calves are often moved to group housing the same time they are weaned. Usually about three calves out of ten will require medical treatment for weaning stress-induced pneumonia.

***A little more management intensive***

Feed a uniform amount of milk or milk replacer to all calves (usually two quarts twice a day). Wean calves around eight to nine weeks of age. At eight weeks start observing grain consumption abruptly stop feeding milk to all calves that are regularly eating starter grain. Continue milk feeding if a calf is eating less than two quarts of grain daily. Usually less than one calf out of ten will require additional time prior to weaning. Calves are often kept in the individual housing for a few days after weaning. Only about two calves out of ten will require medical treatment for weaning stress-induced pneumonia.

***Much more management intensive***

Feed a uniform amount of milk or milk replacer to all calves (usually two quarts twice a day). Wean calves around seven to eight weeks of age. At six weeks start observing grain consumption. Either gradually or abruptly stop feeding milk to all calves that are regularly eating at least two quarts of grain daily for three or four days in a row. Continue milk feeding until a calf is regularly eating this much grain. Usually less than one calf out of eight will require additional time prior to weaning. Hold calves in individual housing for five to seven days after weaning. Only about one calf out of ten will require medical treatment for weaning stress-induced pneumonia.

***Most management intensive***

Feed milk or milk replacer in proportion to the size of the calf (usually starts at two quarts twice a day at birth and increases to about four quarts twice a day by four weeks of age). The success of increased milk feeding rates is tied to strictly following proper sanitation procedures. Feeding larger amounts of milk or milk replacer contaminated with bacteria always makes calves sick. No set age for weaning. At two weeks start observing grain consumption (both how long the calf has been eating grain and how much consumed daily). When grain consumption has been

regular for two weeks (usually during fourth week) reduce milk feeding to one-half. Most calf operations save the most labor by dropping one milk feeding. Stop feeding milk completely when a calf is regularly eating two or more quarts of starter grain daily for three or four days in a row. Calves should be expected to vary widely at this point. Some are ready to wean at thirty-five days while others are not ready until fortynine days. Hold calves in individual housing for five to seven days after weaning. Only about one calf out of twenty will require medical treatment for weaning stress-induced pneumonia.

**Transition Calf Feeding Management Checklist**

1. Does the transition calf ration contain at least 18 percent crude protein?

The growing calf needs lots of good quality protein for muscle and immune system development. Usually the rate of post-weaning feed intake can be encouraged by continuing the same grain mix as was fed in the pre-weaning housing. These calves will need 7 to 10 pounds of grain mix daily to have enough protein for maintenance and growth in excess of 1.5 pounds a day.

2. Does the transition calf ration contain mostly grain and limited amounts of roughage for the first week after weaning?

Most just weaned calves have been living on grain and water (and in some cases, a limited amount of milk). Before they can digest and use the nutrients in roughages like a mature ruminant they need to grow a large number of fiber digesting microbes in their rumens. This growth period is about 10 to 14 days. During this time they continue to live on protein and energy from grain. By eating a limited amount of roughage in addition to grain they encourage the multiplication of ruminal fiber digesting microbes.

3. Does the transition calf ration have enough energy per pound for both maintenance and to meet the farm's growth goals?

The relative size of a transition calf's rumen to her body size is still small compared to an adult cow. By feeding an energy dense ration to these small growing heifers we compensate for this relatively small rumen. That's why grazing heifers consuming high protein grass do so much better when the grass is supplemented by a high energy grain mix. That's why confined transition heifers consuming free choice high protein hay do so much better when supplemented by a high energy grain mix.

4. Does the feeding program focus on feeding the rumen microbes rather than the heifer?

As transition heifers grow older changes in their ration are almost the rule rather than the exception. Often these changes involve introducing a new roughage source. For example, changing from dry hay to haylage or changing from haylage to a mix of corn silage and haylage or changing from grazing grass to stored feeds in the fall. The microbial mix that most efficiently digests each of these roughages varies from one to another. It makes sense to introduce small amounts of roughage that is going to be in the next ration a week or two before transition age heifers have to depend heavily on the new roughage as their sole source of nutrition.

Let's consider procedures for feeding transition calves. Compare your routines with the standards that follow. Rather than just answering "yes" or no you may wish to use these scores: 1=never, 2=seldom, 3=often, 4=usually, and 5=almost always.

_____1. The transition calf ration contains 18 percent crude protein.

_____2. Transition calves are fed free choice starter grain for the first week after moving into group housing.

_____3. Transition calves are fed free choice grain and limited hay the first two weeks after moving into group housing.

_____4. Transition calves are fed a ration with an energy density of at least 3.0 Mcal of ME per Kg of DM until they are about four months old.

_____5. Changes in roughages are preceded by feeding limited amounts of the new roughage for a week or two prior to the overall change.

See the National Research Council publication, Nutrient Requirement of Dairy Cattle. 2001. Chapter 10 “Nutrient Requirements of the Young Calf” Table 10 “Daily Energy and Protein Requirements of Weaned (Ruminant) Calves” for additional details.

# HIGH COW REPORT
# AUGUST 2004

## MILK

| Arizona Owner | Barn# | Age | Milk | New Mexico Owner | Barn # | Age | Milk |
|---|---|---|---|---|---|---|---|
| * Mike Pylman | 1006 | 3-09 | 43,840 | * Pareo Dairy | 173 | 7-00 | 38.739 |
| * Mike Pylman | 1142 | 4-11 | 43,260 | * Providence Dairy | 8827 | 3-10 | 38,580 |
| * Mike Pylman | 1064 | 3-06 | 41,850 | * Pareo Dairy | 879 | 6-01 | 38,226 |
| * Dutch View Dairy | 1300 | 4-11 | 40,130 | * Providence Dairy | 3738 | 6-01 | 37,850 |
| * Mike Pylman | 1170 | 5-08 | 39,490 | S.A.S Dairy | 3913 | 5-08 | 37,135 |
| * Shamrock Farm | U865 | 5-07 | 39,200 | * New Direction Dairy | 97 STR | ----- | 36,780 |
| * Stotz Dairy | 17098 | 3-01 | 37,600 | S.A.S Dairy | 2634 | 5-11 | 36,256 |
| * Mike Pylman | 6788 | 3-06 | 37,530 | * Providence Dairy | 5225 | 3-01 | 36,170 |
| * Mike Pylman | 4868 | 6-03 | 36,660 | * Pareo Dairy | 7564 | 7-10 | 35,875 |
| * Saddle Mountain Dairy | 2312 | 4-10 | 36,510 | * New Direction Dairy | 7806 | 4-03 | 35,700 |

## FAT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| * Mike Pylman | 1064 | 3-06 | 2022 | * Hafliger Dairy | 8088 | 4-03 | 1580 |
| * Saddle Mountain Dairy | 2253 | 6-08 | 1556 | McCatharn Dairy | 1250 | 7-00 | 1432 |
| * Stotz Dairy | 19778 | 4-06 | 1536 | * Do-Rene Dairy | 9714 | 5-06 | 1396 |
| * Mike Pylman | 1006 | 3-09 | 1534 | * Pareo Dairy | 879 | 6-01 | 1364 |
| * Stotz Dairy | 15920 | 3-11 | 1460 | * Pareo Dairy | 173 | 7-00 | 1362 |
| * Mike Pylman | 2163 | 3-09 | 1425 | * Pareo Dairy | 7564 | 7-10 | 1345 |
| * Mike Pylman | 289 | 3-04 | 1408 | * Hide Away Dairy | 4597 | 4-03 | 1341 |
| * Stotz Dairy | 13438 | 5-10 | 1388 | * Pareo Dairy | 9014 | 7-07 | 1328 |
| * Mike Pylman | 35 | 3-04 | 1378 | * Pareo Dairy | 8305 | 4-08 | 1297 |
| * Mike Pylman | 6788 | 3-06 | 1366 | * Goff Dairy | 11240 | 5-06 | 1294 |

## PROTEIN

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| * Mike Pylman | 1142 | 4-11 | 1308 | * Providence Dairy | 8827 | 3-10 | 1222 |
| * Mike Pylman | 1006 | 3-09 | 1247 | * Hide Away Dairy | 4318 | 5-06 | 1177 |
| * Mike Pylman | 1064 | 3-06 | 1232 | * Providence Dairy | 4537 | 4-05 | 1076 |
| * Mike Pylman | 1170 | 5-08 | 1194 | * Hafliger Dairy | 8088 | 4-03 | 1175 |
| * Saddle Mountain Dairy | 2312 | 4-10 | 1116 | * Goff Dairy | 11240 | 5-06 | 1161 |
| * Dutch View Dairy | 1300 | 4-11 | 1108 | * New Direction Dairy | 97 STR | ----- | 1151 |
| * Shamrock Farm | U865 | 5-07 | 1101 | * Hide Away Dairy | 4597 | 4-03 | 1147 |
| * Mike Pylman | 1238 | 8-01 | 1087 | * Providence Dairy | 3738 | 6-01 | 1145 |
| * Mike Pylman | 2163 | 3-09 | 1083 | * Pareo Dairy | 879 | 6-01 | 1124 |
| * Mike Pylman | 6788 | 3-06 | 1080 | * Hide Away Dairy | 4504 | 4-03 | 1103 |

*all or part of lactation is 3X or 4X milking

# ARIZONA - TOP 50% FOR F.C.M.[b]
# AUGUST 2004

| OWNERS NAME | Number of Cows | MILK | FAT | 3.5 FCM | DIM |
|---|---|---|---|---|---|
| * Stotz Dairy West | 2,182 | 26,324 | 956 | 26,879 | 249 |
| * Red River Dairy | 4,490 | 25,750 | 925 | 26,129 | 221 |
| * Triple G Dairy, Inc. | 4,436 | 25,235 | 935 | 26,068 | 197 |
| * Mike Pylman | 4,258 | 24,410 | 867 | 24,609 | 227 |
| * Treger Holsteins, Inc. | 613 | 24,302 | 857 | 24,400 | 239 |
| * Stotz Dairy East | 1,115 | 24,443 | 852 | 24,380 | 230 |
| * Danzeisen Dairy, Inc. | 1,459 | 23,305 | 847 | 23,807 | 246 |
| * Arizona Dairy Company | 5,889 | 23,494 | 826 | 23,548 | 245 |
| * Withrow Dairy | 5,121 | 24,112 | 781 | 23,086 | 217 |
| * Del Rio Holsteins | 824 | 22,813 | 805 | 22,913 | 181 |
| * Butler Dairy | 618 | 23,383 | 782 | 22,787 | 203 |
| * Saddle Mountain Dairy | 2,841 | 23,820 | 767 | 22,733 | 210 |
| * DC Dairy, LLC | 1,056 | 22,285 | 798 | 22,572 | 212 |
| Paul Rovey Dairy | 403 | 22,193 | 794 | 22,467 | 196 |
| * Shamrock Farm | 8,202 | 22,797 | 774 | 22,404 | 206 |
| * Dairyland Milk Co. | 2,712 | 22,606 | 759 | 22,078 | 208 |
| * Zimmerman Dairy | 1,119 | 21,852 | 776 | 22,028 | 235 |
| * Hillcrest Dairy | 2,302 | 22,400 | 750 | 21,843 | 218 |
| * RG Dairy, LLC | 1,335 | 21,734 | 755 | 21,636 | 207 |
| Lunts Dairy | 572 | 21,286 | 764 | 21,589 | 196 |
| * Goldman Dairy | 1,969 | 21,408 | 743 | 21,301 | 209 |
| * Parker Dairy | 4,253 | 20,502 | 740 | 20,860 | 235 |
| * Yettem Dairy | 2,978 | 17,726 | 813 | 20,843 | 192 |
| * Dutch View Dairy | 1,644 | 20,513 | 712 | 20,411 | 225 |
| * Jerry Ethington | 2,207 | 20,206 | 716 | 20,343 | 217 |

# NEW MEXICO - TOP 50% FOR F.C.M.[b]
# AUGUST 2004

| OWNERS NAME | Number of Cows | MILK | FAT | 3.5 FCM | DIM |
|---|---|---|---|---|---|
| * Pareo Dairy #1 | 1,448 | 26,155 | 840 | 26,769 | 210 |
| * Tallmon Dairy | 472 | 26,247 | 870 | 25,457 | 240 |
| * Hide Away Dairy | 2,137 | 26,527 | 828 | 24,897 | 183 |
| * Providence Dairy | 2801 | 26,548 | 824 | 24,841 | 185 |
| Ken Miller | 400 | 24,935 | 865 | 24,809 | 198 |
| * Milagro | 3301 | 24,453 | 872 | 24,714 | 211 |
| * McCatharn Dairy | 1014 | 24,965 | 796 | 23,703 | 187 |
| * Pareo Dairy #2 | 3,222 | 23,304 | 837 | 23,649 | 185 |
| * Do-Rene Dairy | 2348 | 24,075 | 816 | 23,642 | 198 |
| * New Direction Dairy 2 | 1794 | 22,619 | 846 | 23,499 | 235 |
| Prices Roswell Farm | 2723 | 23,081 | 805 | 23,034 | 182 |
| * Goff Dairy 1 | 4315 | 22,540 | 812 | 22,914 | 221 |
| * Halfliger Dairy | 2,024 | 22,225 | 817 | 22,859 | 183 |
| * New Direction Dairy 1 | 34 | 22072 | 808 | 22,646 | 208 |
| * Baca Linda Dairy | 1224 | 23,191 | 763 | 22,401 | 208 |
| Caballo Dairy | 3316 | 21,831 | 792 | 22,283 | 185 |

* all or part of lactation is 3X or 4X milking

[b] average milk and fat figure may be different from monthly herd summary; figures used are last day/month

# ARIZONA AND NEW MEXICO HERD IMPROVEMENT SUMMARY FOR OFFICIAL HERDS TESTED AUGUST 2004

| | | ARIZONA | NEW MEXICO |
|---|---|---|---|
| 1. | Number of Herds | 49 | 28 |
| 2. | Total Cows in Herd | 78,776 | 52,553 |
| 3. | Average Herd Size | 1,608 | 1,877 |
| 4. | Percent in Milk | 84 | 87 |
| 5. | Average Days in Milk | 219 | 198 |
| 6. | Average Milk – All Cows Per Day | 51.8 | 62.2 |
| 7. | Average Percent Fat – All Cows | 3.6 | 3.4 |
| 8. | Total Cows in Milk | 75,051 | 45,581 |
| 9. | Average Daily Milk for Milking Cows | 61.9 | 71.6 |
| 10. | Average Days in Milk 1st Breeding | 85 | 73 |
| 11. | Average Days Open | 163 | 146 |
| 12. | Average Calving Interval | 14.1 | 14.0 |
| 13. | Percent Somatic Cell – Low | 84 | 79 |
| 14. | Percent Somatic Cell – Medium | 10 | 13 |
| 15. | Percent Somatic Cell – High | 5 | 8 |
| 16. | Average Previous Days Dry | 62 | 63 |
| 17. | Percent Cows Leaving Herd | 32 | 31 |
| | | | |
| | | **STATE AVERAGES** | |
| | Milk | 21,989 | 23,155 |
| | Percent butterfat | 3.58 | 3.47 |
| | Percent protein | 2.93 | 3.04 |
| | Pounds butterfat | 789 | 809 |
| | Pounds protein | 651 | 708 |


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UPCOMING EVENTS:
Arizona Dairy Production Conference
Tempe, Arizona
November 4, 2004

Register online at:
http://cals.arizona.edu/extension/dairy/conferences/registration_2004