UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION

February 2005

DAIRY NEWS

Free Engineering Technical Assistance!

University of California Cooperative Extension has FREE engineering assistance for dairy producers who want to upgrade their lagoon irrigation systems to control the rate of lagoon water application to fields, reduce commercial fertilizer expenses, and comply with new permitting regulations. **Call before March 1 at the latest to schedule an appointment**: 209-525-6800. Up to $1000 is available in cost-share assistance.

Manure Management Workshop

February 22nd, 10 AM at Stanislaus County Ag Center, Harvest Hall, at the corner of Service and Crows Landing in Modesto.

New regulations will require that dairies practice nutrient management. Fortunately, there are methods to manage manure nutrients cost effectively. The Manure Management Workshop will feature practical and economically feasible strategies for regulatory compliance. Attendance is free for dairy producers. Lunch will be provided.

Topics Include:

- Fundamental principals of nutrient management
- Reducing manure nutrients through feed management
- Innovative manure collection systems
- Eliminating inorganic fertilizer costs
- Increasing crop nutrient uptake by triple cropping

Please RSVP to Kristen at 415-977-0380; ext. 308; khughes@suscon.org

The meeting is sponsored by University of California Cooperative Extension and Sustainable Conservation

Dairy Day Programs

University of California Cooperative Extension and Co-Sponsor Allied Dairy Industries of Central California announce the following meetings:

SOUTH VALLEY DAIRY DAY

South Valley Dairy Day
Tulare County Ag Building
4437 S. Laspina, Tulare
Wednesday, February 16, 2005

MID-VALLEY DAIRY DAY

Mid-Valley Dairy Day
Merced County Ag Center
2145 W. Wardrobe Avenue, Merced
Thursday, February 17, 2005

This meeting is free of charge. For more information and making luncheon reservations, call one of the following Cooperative Extension offices:

Fresno County	(559) 456-7285
Madera County	(559) 675-7879
San Joaquin County	(209) 468-2085
Stanislaus County	(209) 525-6800
Kings County	(559) 582-3211 Ext. 12730
Merced County	(209) 385-7403
Tulare County	(559) 685-3303

Program

10:00 a.m. **UCCE Research Update**

11:00 a.m. **High Milk Production – Does it Pay?**
Albert L. Nunes, CPA
Genske, Mulder & Co.

11:30 a.m. **CDFA Dairy Activities**

12:00 p.m. **Lunch**

12:45 p.m. **Animal Welfare: The Good, the Bad, and the Ugly**
Carolyn Stull, Ph.D
UCCE Specialist

1:15 p.m. **Motivation: The Dairy Owner's Role in Creating a Place Worth Working For-**
Jorge M. Estrada
Leadership Coaching International, Inc.

2:00 p.m. **On-Farm Carcass Composting: The Mid – West Experience**
Tom Glanville, Ph.D
Iowa State University

2:30 p.m. **Carcass Composting: The Tulare Experience**
John Kirk, DVM
UCCE Specialist

2:45 p.m. **Calf Raising: Custom vs. Home Grown**
Jim Reynolds, DVM
VMTRC, Tulare

Cow Study Yields Surprises About Source, Amount of Dairy Air Pollution

In the UC Davis study, dairy cows were confined in small enclosures equipped to measure all the cows' production of gases and particulate matter. (Frank Mitloehner/UC Davis.)

California dairy cows produce only half the amount of air pollution as had previously been believed and, perhaps more important, most of a dairy cow's contribution to smog comes not from her manure, but from her belching, says the UC Davis scientist conducting the first controlled study of its kind.

Those unexpected findings may substantially change the thinking and the practices of California regulators and dairy operators trying to reduce air pollution.

"Our discovery means our whole approach to dairy waste management and air-emissions management might change," said Frank Mitloehner, the UC Davis air-quality specialist who is conducting the study. "We have to re-think that the only good solutions are engineering solutions, such as capping or aerating manure lagoons, and consider biological avenues such as animal feeding and management."

"For the first time we can tell dairy farmers the source of their air pollution," Mitloehner added. "For the most tightly regulated pollutant, the 700 ozone-forming gases collectively called volatile organic compounds, that source is not the cows' waste. It's the cows."

For three months, Mitloehner has studied dairy cows in controlled environmental chambers to collect precise measurements of the volatile organic gas emissions they produce. The information is urgently needed by the $4.6 billion, 1.5 million-cow California dairy industry -- the largest in the world -- as dairy producers try to comply with strict new pollution rules.

The dairy-air study is planned to last for two more weeks, but the California Air Resources Board asked Mitloehner and others to present their preliminary findings today at a meeting of

the San Joaquin Valley Air Pollution Control District in Fresno.

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The study was prompted by concern over air quality in the San Joaquin Valley, which ranks as the worst in the country. The No. 1 source of ozone (smog) air pollution in the valley is exhaust emissions from trucks and cars. The No. 2 source is thought to be gases from cows on dairy farms.

Using state-of-the-art air-collection and analytical technology, and two environmental chambers to house the cows in, Mitloehner precisely measured animal and waste production of volatile organic gases and other pollutants like ammonia and methane. He also videotaped the cows to correlate the timing of emissions with their activities, such as eating, ruminating and excreting.

His preliminary findings indicate that cows and their waste produce about 6.4 pounds of volatile organic compounds (VOCs) per year.

The only previous estimate of total VOCs -- the estimate that California's rigid new air standard is based on -- is derived from a scientific study conducted in 1938. That old estimate says that a cow produces 12.8 pounds of VOCs per year -- twice the amount that Mitloehner found.

Furthermore, Mitloehner found that about 2.5 pounds of the total 6.4 pounds, or only about 40 percent, comes from excreta.

Mitloehner is lead scientist on the $85,000 study, which is funded by the U.S. Environmental Protection Agency and the San Joaquin Valley Air Pollution Control District.

His collaborators are 14 atmospheric scientists, engineers and physicists -- six from UC Davis, three from Stanford University, two from UC Berkeley, and one each from Harvard University, Iowa State University and the U.S. Department of Agriculture.

Mitloehner is an expert on dairies and air pollution. He is a UC Cooperative Extension specialist in the Department of Animal Science in the UC Davis College of Agricultural and Environmental Sciences.

He also is the chair of the UC Davis Agricultural Air Quality Center, which has 24 associated faculty members. UC Davis is a leading center of air-quality research; with 54 faculty members working on the subject, UC Davis has the largest university air-quality research program in the United States.

Media contact(s):
• Frank Mitloehner, Animal Science, (530) 752-3936, fmmitloehner@ucdavis.edu
• Sylvia Wright, UC Davis News Service, (530) 752-7704, swright@ucdavis.edu

March 9-11, 2005

John Ascuaga's Nugget ◆ Reno, Nevada

Conference Hotel

John Ascuaga's Nugget
1100 Nugget Avenue
Reno, NV 89431
800-648-1177
reservations @janugget.com

A block of rooms has been reserved at John Ascuaga's Nugget hotel**. Please ask for the Western Dairy Management Conference block when making reservations.** Special room rates are $99 + tax (single or double rooms).

Registration

To register, complete and return the attached registration for one person, copy as needed. ***The conference fee is $275 if postmarked by February 1, 2005. The fee is $300 after February 1.*** Fees include one copy of the conference proceedings, two lunches, and three breakfasts. Additional proceedings can be purchased for $25.

Information

For more information, including activities in and around Reno, visit the Western Dairy Management website at:

www.wdmc.org/

For questions by phone, please call:

785-532-2370

The Western Dairy Management Conference is managed by—*Conference Management Services, LLC*

Registration Form

(please complete one form per person, copy as needed)

Name (print or type)_____

First name preference for nametag_____

Farm/Business Name_____

Address_____

City_____State_____Zip_____

Phone_____FAX_____

E-mail address_____

Number of cows milked_____

Check the following categories and total for payment:

☐ 1 registration **(postmarked by Feb. 1; $300 after)**..... $_27

☐ Additional proceedings _____ copies @ $25 each... $___

Conference Shirts (must be ordered prior to conference)

Indicate quantity and size (XS, S, M, L, XL, XXL)

☐ Longsleeve Denim w/logo—$40

quantity_____ size_____..... $___

☐ Shortsleeve Polo w/logo—$35

quantity_____ size_____..... $___

Total Fees..... $___

☐ Check enclosed payable to: Western Dairy Management C

☐ Charge my ☐Master Card ☐Visa ☐Discove

Account number_____/_____/_____/_____

Expiration Date_____

Signature (required)_____

Please mail or fax to:
Western Dairy Management Conference
PMB 348, 1228 Westloop, Manhattan, KS 66502
-or-
FAX: 785-532-2333

2005 Western Dairy Management Conference Schedule

Registration

March 8, 3:00 to 10:00 pm; March 9 and 10, 6:30am to 5:00pm; March 11, 7:30am to Noon

Seminar Schedule

March 9 and 10, 8:00am to 5:00pm; March 11, 8:00am to Noon

Seminars will be presented twice during the conference to accommodate everyone's schedule.

Seminar Topics

- *Pregnant versus open: getting cows pregnant and the difference it makes,* Paul Fricke, University of Wisconsin
- *Managing the heat-stressed cow to improve reproduction,* Peter Hansen, University of Florida
- *Current thoughts about cow comfort and behavior in freestall barns,* Roger Palmer, University of Wisconsin
- *Impact of increased milking frequency during early lactation,* Matt Vanbaale, University of Arizona
- *4x 6x milking panel*, Matt Vanbaale, University of Arizona, moderator
- *Evaluating and selecting cooling systems for different clients,* Mike Brouk, Kansas State University
- *Got starlings? Bird control options for dairies,* Charles Lee, Kansas State University
- *Manure nutrient export strategies,* Deanne Meyer, University of California-Davis
- *How is accelerated heifer growth working?,* Mike Van Amburgh, Cornell University
- *Business analysis: Which financial tools should I use?,* Kevin Dhuyvetter, Kansas State University
- *Making decisions using records and data,* Normand St-Pierre, Ohio State University
- *Expansion issues and pitfalls: Cows/cow comfort/facilities/financial impacts,* panel discussion, Bill Wailes, Colorado State University, moderator
- *Fresh cow care means healthier cows with more milk,* Earl Aalseth, Pilchuck Veterinary Hospital
- *On-farm carcass disposal options for dairies,* Brent Auvermann, Texas A&M University
- *Selecting, training and developing personnel to deliver results,* Jorge Estrada, Leadership Coaching International
- *Strategies for shortening the dry period,* Ric Grummer, University of Wisconsin
- *Impact of short and no dry period on dairy cattle performance,* panel discussion, Robert Collier, University of Arizona, moderator
- *Water: The most essential nutrient,* David Beede, Michigan State University
- *Feeding to minimize acidosis and laminitis in dairy cows,* Randy Shaver, University of Wisconsin
- *Feeding and nutrition management for hot weather,* Joe West, University of Georgia
- *Managing corn silage from seed to feed,* Bill Mahanna, Pioneer Hi-Bred International
- *Applying feed efficiency principles on your farm,* Mike Hutjens, University of Illinois

Gregory Encina Billikopf
Area Farm Advisor, Farm Labor Management
UC Cooperative Extension

Alejandro Castillo, Ph.D.
Dairy Advisor, Merced County
UC Cooperative Extension

Carol Collar
Dairy Advisor, Kings County
UC Cooperative Extension

Alec Gerry, Ph.D
Veterinary Entomologist, UC Riverside

Gerald Higginbotham, Ph.D.
Dairy Advisor, Fresno - Madera Counties
UC Cooperative Extension

John Kirk, DVM
Extension Veterinarian
UC Cooperative Extension

Bob Moeller, DVM
Diagnostic Pathologist
CA Animal Health and Food Safety Lab

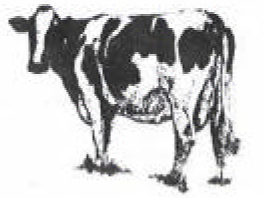
Mike Overton, DVM
VMTRC, Tulare

Jim Reynolds, DVM
VMTRC, Tulare

Jon Robison, Ph.D.
Professor, CSU-Fresno

Jorge Vanegas, DVM
VMTRC, Tulare

Dairy Herdsman Short Course



April 19-21, 2005

California State University-Fresno
CATI Conference Room
Corner of Chestnut and Barstow
Fresno, CA

UC CE

ANR

Sponsored by:

University of California
Cooperative Extension

The dairy herdsman short course is designed for working dairy employees. Its purpose is to provide the people who do the actual work on the dairy the opportunity to receive information about the latest technology and training in all aspects of dairy management.

Personnel from University of California Cooperative Extension, UC School of Veterinary Medicine, UC Riverside and California State University-Fresno will assist in instruction. Simultaneous translation will be available at the sessions to assist Spanish-speaking attendees.

The seminar will consist of morning classroom teaching with afternoons providing hands-on training. Notebooks with written handouts will be provided to each participant.

Cost of short course

Registration fee for the short course is $180. Companies and/or dairies with more than one participant will be $180 for the 1st participant and $100 thereafter. Students will be charged $100. This fee includes a notebook with handouts, lunch, plus short course shirt. Pre-registration is required. No registration at the door will be accepted.

Enrollment in the short course will be limited to 40 participants. This limit is set to provide personalized teaching and hands on training. Acceptance will be on a first come, first serve basis. All money will be returned in full for those not accepted.

Please complete the registration form in this brochure as soon as possible and send it in with the registration fee before **April 11, 2005**. If you need further information please contact Gerald Higginbotham, Dairy Advisor, UC Cooperative Extension at 559-456-7558.

Tuesday, April 19, 2005

a.m.
8:30 **Registration**

9:00 **Foot Care**
- Foot anatomy
- Identification and treatment of hoof diseases

10:00 **Nutrition - Dry / Milk Cows**
- Feeding of the close-up dry cow
- Prevention of metabolic disorders
- Silage management
- Feed bunk management
- Manure evaluation

10:45 **Milking Management**
- Proper milking procedures
- Milk quality
- Milking equipment overview
- Cleaning and sanitation
- Troubleshooting milk quality problems

12:30 **Lunch**

p.m.
1:00 **Hands-on Exercises**
Lab 1 - Calf autopsy
Lab 2 - Foot trimming
Lab 3 - Milk quality

4:00 **Adjourn**

Wednesday, April 20, 2005

a.m.
8:30 **Animal Care**
- Handling downer cows

9:00 **Cow Health Diagnostics**
- Heart and lung sounds
- Detection of displaced abomasums

9:30 **Fresh Cow Management**
- Transition strategies
- Fresh cow care

10:30 **Reproductive Management**
- Reproductive tract anatomy
- Hormones of the estrous cycle
- Timed breeding programs

11:45 **Fly Control on Dairies**
- Identification of fly species
- Implementation of a fly control program

p.m.
12:30 **Lunch**

1:00 **Hands-on Exercises**
Lab 1 - Reproductive tracts
Lab 2 - Cow health
Lab 3 - Fly control strategies

5:00 **Adjourn**

Thursday, April 21, 2005

a.m.
9:00 **Labor Management**
- Employee selection
- Employee discipline
- Conflict management
- Performance appraisal

10:30 **Prevention and Control of Mastitis**
- Basic mastitis control
- Preventing serious outbreaks
- Treatment strategies
- Proper drug usage

12:00 **Lunch**

12:30 **Dairy Herd Management Software Training**
- DHI Plus
- Dairy Comp 305

2:00 **Herd Health**
- Early decisions for market cows
- Diagnosis of common diseases
- Vaccination strategies

3:00 **Raising Replacements**
- Digestive system development
- Colostrum management
- Vaccination programs

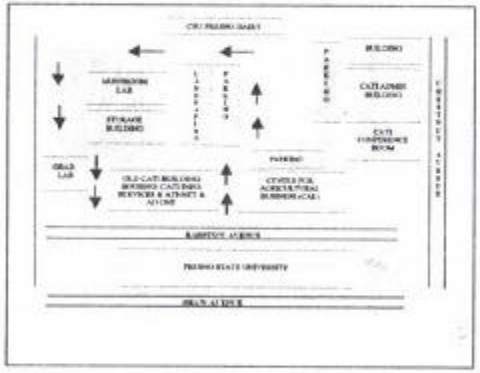
3:45 **Dairy Facilities**
- Maintenance of corrals, freestalls, etc.
- Manure management

4:15 **Wrap-up Session**

Directions to the CATI conference room:

Coming from the North and South on Freeway 99:

- **Take the CA-41 N exit towards Yosemite**
- **Merge onto CA-41 N**
- **Take the CA-180 E exit towards Kings Canyon**
- **Merge onto CA-168 W**
- **Take the Shaw Ave. exit and turn left onto Shaw Ave**
- **Get into right hand lane and turn right onto Chestnut Ave.**
- **Turn left onto Barstow**
- **The CSU-Fresno dairy and CATI Conference center is on the corner of Barstow and Chestnut**



Upon request a list of nearby motels can b furnished.

Dairy Herdsman Short Course
April 19-21, 2005
California State University-Fresno
CATI Conference Room
Fresno, CA

Please send one form for each participa

Name _____
Last Name First Nam

Address _____
Number and Street

Company _____

Work Phone _____

Cell Phone _____

Spanish speaking (please circle) Yes N

Golf Shirt (Please circle size)
Men: M L XL 2X 3X
Women: S M L XL 2X

Enclosed is $_____ for _____ peopl to attend the meeting at $180 per person. $100 for each additional participant from dairy and/or company. $100 for students.

Make check or money order payable to U **Regents.** Mail to: Gerald Higginbotham UCCE, 1720 S. Maple Ave., Fresno, CA 93702.

Dairy software used or would want more info on:
Dairy Comp 305 _____
DHI Plus _____
Other _____